

TEACHER AS
REFLECTIVE PRACTITIONER

Some Implications for
Professional Development

by

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This is to certify that this dissertation contains no material which has been accepted for the award of any other higher degree or graduate diploma in any tertiary institution, and that, to the best of my knowledge and belief, this dissertation contains no material previously published or written by another person, except when due reference is made in the text of the dissertation.

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Abstract

This study explores the notion of teacher as researcher, as reflective practitioner, and contends that the professional development most likely to enhance teachers' practice in classrooms is that which engages them in systematic, self-critical inquiry into their own practice, or in other words, assists them to become reflective practitioners.

Teaching is viewed as creating and sustaining the predisposition and the conditions for learning to occur; it follows that the teacher's role is seen as engendering students' engagement in learning, and that learners are perceived as constructors of their own knowledge. Implicit in this view is the acknowledgement that teaching is inherently complex and problematic. It might be expected that the way we view teaching has a direct bearing on the way we view professional development. Yet past practices in professional development have generally been unsuccessful in bringing about change in teachers' classroom work, largely because they have tended to be incompatible with the complexity of the teaching and learning process.

In endeavouring to find a conception of teaching adequate to its essential nature, several models of teaching are explored: teaching as craft, as applied science, as fine art, as moral endeavour and, finally, as moral science. The conception that emerges as the most promising is that of teaching as moral science, the reflective practice of a professional ethic, with the teacher in the role of researcher, systematically inquiring into his own practice. Stenhouse's (1975) notion of teacher as researcher, Schön's (1983) conception of the reflective practitioner and Eisner's (1979) concepts of connoisseurship and educational criticism are analysed for their contributions to our understanding of the teacher as reflective practitioner. Central to their theories is the premise that reflective practitioners progressively construct their own knowledge through heuristic and hermeneutic approaches to their professional experience.

This view of knowledge as personal construct, it is argued, is essential to any conception of reflective practice, and moreover, it involves a significant paradigm shift in theories about teacher knowledge. In attempting to develop an explanation of this notion, the study looks to theories of language development and aesthetics; turning in particular, to the work of Britton, Polanyi and Langer. What emerges is that all knowledge relates to experience. Thus reflective practitioners progressively construct their knowledge, deriving practice from theory, and theory from practice.

The inquiry-based approach to professional development, which follows from this view of practitioner learning, contends that teachers' reflection on their systematic inquiry into their teaching will provide them with insights that can be applied and tested in practice: a continuous-process of learning about their practice and about how they can make-changes to it. Thus professional development programs have a key role in supporting teachers' sustained and critical inquiry, and in encouraging collaborative ways of learning, to support the development of a discourse which will enable teachers to talk and write about their practice in increasingly precise ways. In sum, inquiry-based professional development programs empower teachers to take responsibility for their learning and for enhancing their teaching.

Blue Umbrellas

'The thing that makes a blue umbrella with its tail -
How do you call it?' you ask. Poorly and pale
Comes my answer. For all I can call it is peacock.

Now that you go to school, you will learn how we
call all sorts of things;
How we mar great works by our mean recital.
You will learn, for instance, that Head Monster is
not the gentleman's accepted title;
The blue-tailed eccentrics will be merely peacocks;
the dead bird will no longer doze
Off till tomorrow's lark, for the letter has killed him.
The dictionary is opening, the gay umbrellas close.

Oh our mistaken teachers! -
It was not a proper respect for words we need,
But a decent regard for things, those older creatures
and more real.
Later you may even resort to writing verse
To prove the dishonesty of names and their black
greed -
To confess your ignorance, to expiate your crime,
seeking one spell to lift another curse.
Or you may, more commodiously, spy on your
children, busy discoverers,
Without the dubious benefit of rhyme.

D. J. Enright

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Introduction

Reflection is discussion carried on inside one.

P. Janet (quoted by M. Milner, 1934)

The thinking which has led me to this study began several years ago while I was teaching in a secondary school and focusing on the quality of my own teaching and of that within the subject department for which I had responsibility. What were the sorts of questions I could ask myself - and encourage my colleagues to ask themselves - which would enable me to get closer and closer to teaching which engendered 'real' learning, learning that is genuine, worthwhile and lasting? How would I know that 'real' learning had occurred? It has remained a guiding principle with me that the searching, probing nature of well formulated questions, with their capacity to turn rocks upside down and reveal hidden creatures, as it were, is the key to investigating and subsequently enhancing the practice of teaching.

More recently, my work has been in the professional development of teachers, both in the development and implementation of major policy initiatives at system level, and in a collaborative endeavour with tertiary institutions to devise and implement award-bearing professional development programs which are of genuine relevance to teachers' professional practice. From my work has emerged a conviction that the professional development which is of most value to teachers is that which supports and encourages their sustained, systematic and critical inquiry into their classroom practice and their consequent attempts at innovation. It seems logical that I would make connections with the notion of teacher as reflective practitioner and seek to explore ways that professional development can support teachers' individual and collaborative reflection.

Professional development that is useful to teachers relates closely to their professional practice, to their teaching in classrooms and to the theories

that inform their teaching. With this in mind, my study begins with a consideration of the nature of the activity of teaching. If teaching can be said to be creating and sustaining the predisposition and the conditions for learning to occur, there is an implicit acknowledgement that teaching is a very complex activity, requiring the teacher to act in highly sophisticated and sensitive ways. The teacher's role is to engender the engagement of learning and learners are perceived as constructors of their own knowledge. This is the nature of my exploration in chapter 1, then, with the intention of setting a context for considering the kind of professional development activity that is most likely to support and enhance teaching.

In chapter 2 I attempt to provide a brief survey of past practices in professional development, in Britain and the United States as well as Australia. Despite universal requirements on schools and teachers to assume a wide range of new tasks and to change their practices in fundamental ways, we note the failure of professional development programs, in general, to bring about such change. The reasons for this are not only because approaches to professional development have largely ignored the cultural dimensions of teaching, but also because they have tended to be incompatible with the complexity of the teaching and learning process. Thus in chapter 3, which attempts to build on the context established in the first chapter, I set out to explore a range of models of teaching: teaching as craft, as applied science, as fine art, as moral endeavour and, finally, as moral science. In seeking to find a way of conceiving teaching adequate to its essential nature, as a very complex and sophisticated activity, I am pursuing the notion that approaches to professional development are profoundly influenced by attitudes to teacher roles. The promising conception that emerges from my exploration is that of teacher as researcher, as systematic inquirer and of teaching as the reflective practice of a professional ethic.

This conception, of teacher as researcher or as reflective practitioner, is the subject of chapter 4, and here I delve into Stenhouse's (1975) notion of the teacher as researcher and Schön's (1983) conception of the reflective practitioner, as well as Eisner's (1979) artistic approaches to evaluation, in which he develops his notions of connoisseurship and educational criticism. We shall see that, at base, Stenhouse, Schön and Eisner are each concerned with questions relating to professionals' knowledge: what is the

source and nature of teachers' knowledge about teaching, how do they make sense of the world of schooling, how do they make use of the knowledge they acquire, and why do scientifically derived research findings seem to be of little use in teachers' practical work? Each of our luminaries sees teachers as constructors of their own knowledge through both heuristic and hermeneutic approaches to their own experience of teaching. We shall see, too, that it is this theory of knowledge as personal construct that brings coherence to the work of Stenhouse, Schön and Eisner, and, indeed, to our understanding of reflective practice.

Why do Stenhouse, Schön and Eisner so strenuously repudiate Positivist empiricist science as making little contribution to practitioners' knowledge? What do we mean by the notion that knowledge is a personal construct? These are the two questions that set my task in chapter 5, which is an attempt to develop an epistemology of reflective practice. In this endeavour I turn for assistance to theories of language development and aesthetics, because it is from these theories that we gain understanding of how we make meaning of our experience, so constructing knowledge of our world. We learn, too, that Positivist research methodology stands in contradistinction to the theory that knowledge is personally constructed. Theories of knowledge founded on Positivist empiricism fail teachers by disenfranchising them from their professional practice, whereas the theory of reflective practice recognises the primacy of personal knowledge and the interrelationship of theory and practice, thereby empowering teachers.

How can professional development empower teachers as intellectuals, capable of systematically investigating and theorising about their own practice, and capable of implementing and monitoring changes in their classrooms? By inspiring and supporting teachers' development as reflective practitioners. This, I believe, is the contribution of the theory of reflective practice and my task in chapter 6 is to explore the implications for professional development of the concept of the reflective practitioner or teacher researcher. What emerges is that the challenge for professional development programs is to assist teachers to engage in systematic, self-critical inquiry into their own practice by promoting a dialectic between knowledge and experience, by encouraging the development of a shared and focused discourse, and by supporting teachers' reflection on their

teaching and on their learning, both in their writing and in their conversations with colleagues. Teachers who are reflective practitioners take responsibility for their own learning and their reflection on their learning informs their understanding of their students' learning.

I wish to note that in my writing I set out to be especially particular to refer to a teacher always as 'he or she', and those who know me and my egalitarianism would only expect me to do so. I soon found, however, that this insistence of mine seemed to make my writing cumbersome. In order, then, to prevent cumbersome wordiness from detracting from the meaning and flow of words, I have adopted the practice of using the male pronoun when referring to the teacher. I made this decision in full cognizance of the devaluing effect that the feminisation of teaching has had on the profession.

Finally, I wish to acknowledge the encouragement and support of my supervisor, Dr Bevis Yaxley, and to record my gratitude for the many hours of inspiring conversation. I wish, also, to acknowledge my debt to Mr Hugo McCann.

Dianne Peacock,
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Chapter 1

On the Nature of Teaching

As civilized human beings, we are the inheritors ... of a conversation, begun in the primeval forests and extended and made more articulate in the course of centuries. It is a conversation which goes on both in public and within each of ourselves.

Michael Oakeshott (1962)

To engage with our students as persons is to affirm our own incompleteness, our consciousness of spaces still to be explored, desires still to be tapped, possibilities still to be opened and pursued.

Maxine Greene (1986)

A significant teaching experience occurred very early in my career. It was an experience for which I was unprepared, and one to which my initial reactions were vastly different from the memories which have since frequently given shape to my thinking about teaching.

By way of conclusion to a unit of work with a year 10 class on Charles Dickens' Great Expectations, I had asked the class to consider which was the more appropriate ending to the novel, the published ending in which Pip is united with Estella or the original and more sombre ending which Dickens' friend, the novelist, Edward Bulwer Lytton had successfully pleaded with him to discard. I was delighted with the lively but orderly discussion that developed as some students declared their preference for the happier ending, while others began to argue cogently that the original ending was more in keeping with the intention, themes and tone of the novel. I soon had no need to ask questions to stimulate discussion; the students were absorbed by their endeavours to clarify and justify the positions they had taken, quoting examples from the text to substantiate their claims about Dickens' intentions. Suddenly I realised that the students had taken over the discussion! Worse, I was superfluous in the classroom! But this was my class; I was the teacher; I was supposed to be in control. Not knowing what to do in a situation that had been wrested from my control, I left the room. I was stunned and needed a minute or two to adjust to this unfamiliar situation.

Curiosity and responsibility, of course, demanded my return. The discussion was continuing; in genuine engagement the students were all coming to agree that the original ending was, indeed, true to the themes, tone and character development of the novel. It was the engagement of the students, their motivation and interest in exploring ideas and their ability to enquire into a work of literature at such a sophisticated level, that provided for me a significant learning experience as a teacher. At first my response was emotional: I was amazed, challenged, frightened, awed by what the students had achieved. I was most impressed by the understanding and capabilities of these fifteen year olds.

Later I realised I had achieved something rare in teaching. How could I replicate the students' engagement, not in any exact sense, but how could I devise strategies that would motivate the students (in all my classes) and assist them to take charge of and responsibility for their own learning in a way that would enable me, the teacher, following the wisdom of Lao Tzu, to lead from behind?

As a teacher of English, literature has provided the focus for much of my work with students, in my efforts to assist students' language and literacy development. I have always been a very keen reader and in contemplating reading found my greatest inspiration in the words of C. S. Lewis (1961):

... in reading great literature I become a thousand men and yet remain myself. Like the night sky in the Greek poem, I see with a myriad eye, but it is still I who see. Here, as in worship, in love, in moral action, and in knowing, I transcend myself; and am never more myself than when I do (p. 141).

Readers owe an enormous debt to authors for the extension of their being. Through their reading, readers are lured to learn about life in ways that might otherwise be denied to them. Such vicarious experience of a veritable slice of life constitutes one means by which readers as learners are empowered to make connections between their experience and that of others, and thus to extend their own experience. The initial response to a work of literature, I would contend, is essentially chaotic, and it is in sorting out this chaos and in imposing order that the learning occurs, that the connections are made.

There is magic in the kind of reading described by C. S. Lewis, in which the reader transcends himself or herself. There is magic in making connections between previously unconnected associations, and in the conversation, as it were, whereby the reader engages with the work of literature. But engaging with a work of literature is, of course, just one example of how the exploration of new ideas and thinking can lead to the discovery of new associations and result in new ways of perceiving. Whatever the impetus for learning, whatever the nature of the contemplation, the magic of engagement endures to promote the drive and curiosity for further learning. Establishing the conditions and the predisposition for engagement of this kind - enabling engagement - is the task of the teacher; it is also, by analogy, or perhaps merely by extension, what I mean by good teaching.

For Michael Oakeshott the institutions of teaching and learning are 'the places where conversationality is explicitly given priority. It is when teaching and learning allow us to forget for a while to be preoccupied with ulterior goals and purposes that they fulfill the peculiarly human desire for self-understanding which gives rise to them' (Fuller, 1989, Introduction). These words seem reminiscent of the engagement, the transcendence, which Lewis describes as the potential of great literature. The connection is strengthened by Fuller's concluding comments:

If teaching and learning foster anything, it is intellectual and emotional maturity: finding a way to be at home in the world. ... It is above all the calling of the teacher who has remained a learner to discover how to be at home in the world when forever conversing with the exuberant young: to be both old and young at once (Fuller, 1989).

Conversation might be described as the art of intervention and the art of restraint, so that the verbal facility of the teacher, the trained intellectual, does not silence the tentative and, as yet, untrained verbal styles of the students. Shor (1986) might have taken inspiration from Oakeshott:

The teacher needs to think of herself or himself as a creative artist whose craft is instruction. An exciting instructor is a communications artist who can engage students in provocative dialogue. ... a dramatic teacher models the aesthetic joy of dialogue, the pleasure of thinking out loud with others (p. 422).

Learning is a cumulative process, and it is active, not passive. Learning is about making connections; it is about acquiring, extending and developing knowledge and ideas, competencies and skills, attitudes, feelings and values, in a process in which they take on shape and meaning so that they can be applied. Learning involves applying facts, principles and theories in new situations and assimilating new facts and ideas. It involves making judgements based on clear criteria. Learning is a matter of active, critical thinking. Thus the learner is empowered.

'Successful learning gives us that rush of confidence which comes from competence' (Sizer, 1984, p. 2). Sizer describes learning as a 'complex, effortful, and often painful process. It can be exasperating too and also full of the wonder of new ideas and new skills. It can be painful to open one's mind, to change one's views, to try the unfamiliar. Doing such things is often threatening, even as they may be exciting' (p. 150).

Whatever the mode of teaching, it is the presence of curiosity, of a clear sense of purpose and worth, and an intensity of the magic of discovery which is the force that will empower students.

Teachers themselves must be empowered, as learners and as teachers, to program their teaching towards engaging students in the magic of learning as a matter of course. Professional development has a key role in empowering teachers to make planned opportunities for learning to occur. Just as Sizer says 'the only function of the teacher is to assist the student to learn' (1984, p. 151), so I believe the only function of professional development is ultimately to assist the teacher to assist the student to learn better.

So, what is good teaching? If teaching can be described as creating and sustaining the disposition and the conditions that make it possible for learning to occur, how can such conditions always be optimised? What is the role of professional development in this endeavour? How, indeed, can teachers be assisted to ensure the creation of the disposition for learning to occur most effectively?

Sizer views teaching as a very delicate task. By way of example, he gives a description of the 'composite' Sister Michael, who is teaching literature:

Her tactic in this class was Socratic: she was trying to help the students learn to ask original questions about a work of art ... to see new sides to otherwise ordinary things. A string of questions tends to tease out ideas that have been locked up or to force into the open relationships that, to the student reader's eyes, had not been there (pp. 143-144).

... the sister herself personified a style of kindness that was married to rigour and demand. Her judgement, timing, and sense of direction were clear but not obtrusive. This class was a model of the craftsman at work, a craftsman of sensitivity and judgment (p. 145).

The key to Sister Michael's success as a teacher is her judgement, her 'ability to find the appropriate recipe for engaging the attention and ultimately the minds and energies of ... [her] particular students' (p. 150). She has the sensitivity, subtlety and adaptability to find just the right balance of all those classroom elements that enable students to learn. Her judgement is an extension of her personality, her 'solid confidence' in herself and her subject, and her 'ability to move flexibly to achieve' her objectives.

In articulating his concept of a good teacher,Sizer focuses on qualities and judgement, rather than on technical expertise in the practice of teaching:

A good teacher is self-confident. Teaching is being on show. It is challenging a student's ideas, an arrogant art if you are not well informed. It is being the oracle, passing along truths to less knowledgeable folk who depend on their teacher's accuracy. It is playing God, because a teacher's attitudes and expectations can profoundly affect young people, particularly the most vulnerable among them ...

Good teachers are patient, and patience flows out of the confidence that quiet 'thinking time' can be well spent. ... Confident teachers create confidence in their students. ...

A good teacher tells students the truth about themselves. How the truth is articulated is, of course, a matter of sophisticated judgment (pp. 181-183).

Sizer concludes, 'teaching is science, art and craft' (p. 191).

In considering a knowledge base for teaching, Shulman (1987) found that 'richly developed portrayals of expertise in teaching are rare', with most

characterisations of effective teachers emphasising classroom management, while few also give careful attention to 'the management of ideas within classroom discourse' (p. 1). His discussion proceeds from a brief account of the work of an English teacher, Nancy, which concludes:

... Nancy's pattern of instruction, her style of teaching, is not uniform or predictable in some simple sense. She flexibly responds to the difficulty and character of the subject matter, the capacities of the students (which can change even over the span of a single course), and her educational purposes. She can not only conduct her orchestra from the podium, she can sit back and watch it play with virtuosity by itself.

Shulman comments:

What does Nancy believe, understand, and know how to do that permits her to teach as she does? Can other teachers be prepared to teach with such skill? The hope that teaching like Nancy's can become typical instead of unusual ... (1987, p. 3)

Shulman argues that just as Piaget 'discovered that he could learn a great deal about knowledge and its development from careful observation of the very young', we can learn much about a knowledge base for teaching by studying those who are just learning to teach:

Their development from students to teachers, from a state of expertise as learners through a novitiate as teachers, exposes and highlights the complex bodies of knowledge and skill needed to function effectively as a teacher. The result is that error, success, and refinement - in a word, teacher-knowledge-growth - are seen in high profile and in slow motion. The neophyte's stumble becomes the scholar's window (p. 4).

Further, by observing the skill with which teachers such as Nancy teach the same material that poses difficulties for new teachers, Shulman was enabled to focus on the 'kinds of knowledge and skill ... needed to teach demanding materials well' and to learn 'how particular kinds of content knowledge and pedagogical strategies necessarily interacted in the minds of teachers' (p. 5). He proposes a view of teaching:

Teaching necessarily begins with a teacher's understanding of what is to be learned and how it is to be taught. It proceeds through a series of activities during which the students are provided specific instruction and opportunities for learning, though the learning itself ultimately remains the responsibility of the students. Teaching

ends with new comprehension by both the teacher and the student (Shulman, 1987, p. 7).

Shulman has provided a 'core conception of teaching', but he is unhappy with it. He does not wish to suggest a view of teaching that is limited to knowledge transmission from active teacher to passive student, nor to direct instruction. Rather, his 'affinity for discovery learning and inquiry teaching is both enthusiastic and ancient. ... Central to ... [his] concept of teaching are the objectives of students learning how to understand and solve problems, learning to think critically and creatively as well as learning facts, principles, and rules of procedure. ... [In addition,] the learning of subject matter is often not an end in itself, but rather a vehicle employed in the service of other goals' (p. 7).

Shulman contends that teachers like Nancy represent models of pedagogical excellence and in that sense they are keys to the future. Teachers must be educated to 'reason soundly about their teaching as well as to perform skilfully' (p. 13). The teacher's understanding 'must be linked to judgment and action, to the proper uses of understanding in the forging of wise pedagogical decisions' (p. 14).

The key to distinguishing the knowledge of teaching lies at the intersection of content and pedagogy, in the capacity of a teacher to transform the content knowledge he or she possesses into forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by the students (p. 15).

Reflection is a key component of pedagogical reasoning. Reflection:

is what a teacher does when he or she looks back at the teaching and learning that has occurred, and reconstructs, reenacts, and/or recaptures the events, the emotions, and the accomplishments. It is that set of processes through which a professional learns from experience. ... It is likely that reflection is not merely a disposition ... or a set of strategies, but also the use of particular kinds of analytic knowledge brought to bear on one's work. ... Central to this process will be a review of the teaching in comparison to the ends that were sought (Shulman, 1987, p. 19).

Shulman's view of teaching emphasises the process of pedagogical reasoning undertaken by the teacher, 'the intellectual basis for teaching performance'. He warns against producing 'an overly technical image of teaching, a scientific enterprise that has lost its soul' (p. 20), inferring

without actually stating the aesthetic as well as intellectual dimensions of teaching.

Duckworth's view of teaching is premised on Piaget's tenet that 'people must construct their own knowledge and must assimilate new experiences in ways that make sense to them' (1986, p. 481). She sees two aspects to teaching:

The first is to put students into contact with phenomena related to the area to be studied ... and to help them notice what is interesting; to engage them so they will continue to think and wonder about it. The second is to have the students try to explain the sense they are making, and, instead of explaining things to students, to try to understand their sense. These two aspects are, of course, interdependent: when people are engaged in the matter, they try to explain it and in order to explain it they seek out more phenomena that will shed light on it (pp. 481-2).

Several observations are made about this second aspect of teaching. In asking students to explain to her what they think and why, Duckworth places high value on students' articulation of their thoughts as a vital part of the learning process. In articulating or explaining for others, 'students achieve greater clarity for themselves'. Since it is the students who primarily ask the questions and provide the explanations, the students are largely determining what they want to understand, and thus controlling their own learning. Further, the students come to depend on themselves as learners. Duckworth continues:

They are the judges of what they know and believe. They know why they believe it, what questions they still have about it, the degree of uncertainty about it, what they want to know next about it, how it relates to what other people think. ... [And] students recognize the powerful experience of having their ideas taken seriously. [They also] learn an enormous amount from each other. ... Finally, learners come to recognize knowledge as a human product, since they have produced their own knowledge and they know that they have. What is written in a book becomes viewed as somebody else's creation, a creation produced just as they produced their own. Its origin is not of another order (p. 487-8).

In having the students provide the explanations, the important task for the teacher is to try to ascertain what sense the students are making and to encourage them to sharpen their understanding. 'It is because of the basic concerns of a teacher - because of wanting to be sure that students

understand - that ... [the teacher] remains noncommittal, resists early acceptance of a student's understanding, and searches for any soft spots that require more thinking.' Duckworth also draws attention to the importance of trying 'to have all the students share ... the responsibility of making sure they understand each other.' She suggests that it is often hard for people to admit to themselves that they do not understand and many 'assume that if they have not understood what has been said, the shortcoming is their own' (p. 489).

Duckworth's view of the teacher, then, is of

someone who engages learners, who seeks to involve each person wholly - mind, sense of self, sense of humour, range of interests, interactions with other people - in learning. And, having engaged the learners, she finds her questions to be the same as those that a researcher into the nature of human learning wants to ask... (p. 490)

The teacher is curious about the students' thoughts, wondering what they think and why, how they construct their understanding, pursuing such fundamental questions as the following:

How do other people really think about these matters? Which ideas build on which others and how? Which interests build on other interests? Which ideas get in the way of other ideas? What seem to be ... the 'critical barriers' in this field? How does an idea get modified? How does a firmly held conviction influence how a person reads an experience? What is the range of conceptions covered by a 'right-sounding' word or phrase? In what circumstances is a person confused by/deaf to/helped by another person's thoughts? What factors keep interest high? How does a specific representation of one's thoughts influence how the thoughts develop further? How does a new idea lead to a new question, and vice versa? (p. 490)

It is clear that Duckworth's view of teaching requires a very talented and skilled professional, someone who can perceive both curriculum and pedagogical possibilities, someone 'who knows ways into a subject matter well enough to engage a great variety of learners, and to keep them going as they ask and answer further questions' (p. 490). And, by implication, the teacher is constantly endeavouring to understand more about his or her own practice, both to learn about and to engender opportunities for continual growth in understanding learning and teaching. The practitioner is teacher, learner and researcher.

Howard (1989) describes teaching as 'the creating and sustaining of circumstances that make it possible for students to generate knowledge' (p. 226). She writes of knowledge carrying 'notions of "middleness", of being in the middle, of balance and perspective.' The acquisition of knowledge suggests 'wholeness, expansiveness, and liveliness', 'activity, relationship, and intimacy'. Knowledge 'develops as the pursuit of it follows an inner impulse or interest of the student's into the world around him or her and lets that pursuit reflect back again into his or her own being. The swing between inner impulse and experience-in-the-world requires a kind of middleness.' Because increased knowledge enables perspectives to be broadened and can thus influence action, knowledge carries an ethical or moral quality. For Howard, also, 'the more we share [ideas] with one another, the deeper and richer our understanding becomes'; hence, the pursuit of knowledge requires 'an inclusive, collaborative, open atmosphere'. (p. 226)

Thus, as a teacher, Howard is 'creating a setting that gives plenty of room and time for the making of knowledge', a secure environment that promotes risk-taking. She wants her 'children to learn how their own perspectives position them in the larger world'. She sees it as her 'responsibility to catch the gleam in the eye of the child who has discovered something compelling' and to give that 'individual's interests and discoveries a public hearing', thus enabling everyone within the group the opportunity to learn (p. 226). It is Howard's task to 'gauge the moment to set self-knowledge against other perspectives.' She writes:

... I provide the lens between the 'very now' and the 'larger now': the 'now' we're living in at this time in our classroom, and the 'now' of the past and future that expands around us. As the middle ground, I have to bridge all these states of being. It's hard to do. I am always aware of the connections I have failed to make (p. 228).

Ducharme and Kluender (1986) distinguish between the art and the craft of teaching. When teachers are skilled in the craft of teaching, 'they present subject matter clearly, check on student mastery, maintain order in the classroom, assign and collect homework, carry on three conversations at one time, and perform a dozen other tasks' (p. 44). These are competent teachers, but their teaching is not inspirational, almost pedestrian; it demonstrates little artistry. 'Evocative teaching modes on the other hand

stress inquiry and discovery', provide for active engagement, and 'force students to participate more directly in shaping the structure and direction of the class, eliciting what students know and helping them and their teachers to raise provocative and compelling questions. The result is artful teaching. ... When teaching is artful one sees a sense of wonder, an excitement in the subject matter, the free play of the imagination, a what-if vision of the world, an evoking of the unknown, and synthesis' (pp. 43-4).

Eisner (1979) also argues for fostering 'whatever artistry the teacher can provide' (p. 155). Educational activity, says Eisner, 'is much like the artistic activity a painter engages in as he or she copes with emerging visual configurations on a canvas. Each stroke alters the pattern, each new colour changes the whole' (pp. ix-x). Eisner's thesis is that teaching is an art guided by the educational values, the personal needs, and by the variety of beliefs or generalisations that the teacher holds to be true (p. 153). To claim that 'teaching can be engaged in as art is not to suggest that all teaching can be characterised as such. ... Teaching can ... be wooden, mechanical, mindless and wholly unimaginative. But when it is sensitive, intelligent, and creative - those qualities that confer upon it the status of an art - it should ... be regarded ... as an example of humans exercising the highest levels of their intelligence' (p. 155). This is artistic teaching, an ideal rather than a common occurrence, but an ideal that should be fostered.

Teachers who function artistically 'not only provide children with important sources of artistic experience, they also provide a climate which welcomes exploration and risk-taking and cultivates the disposition to play. To be able to play with ideas is to feel free, to throw them into new combinations, to experiment and even to 'fail'. It is to be able to deliteralize perception so that fantasy, metaphor and constructive foolishness may emerge. For it is through play that children eventually discover the limits of their ideas, test their own competencies and formulate rules that eventually convert play into games. ... Play opens up new possibilities, whereas games exploit those possibilities [making them productive]. ... For such a disposition to be cultivated, teachers themselves need to feel free to innovate, to explore and to play' (pp. 160-1).

A brief consideration of some views on the nature of teaching, then, contributes a number of key ideas. For Oakeshott teaching is in the nature

of a conversation, it involves being both old and young at once, leading with the wisdom of age and engaging with the exuberance of youth. In Shor's view the teacher is a creative artist whose craft is instruction, who engages students in provocative dialogue and who indulges both students and teacher in the pleasure of thinking out loud with others. In both of these views, teaching takes the form of a conversation, in which engaging students in articulating their thoughts and using this articulation as a means of urging them to extend their thinking and knowing is vital, indeed, tantamount to the learning process.

This is the learning theory that informs the work of Duckworth. She identifies two aspects of teaching: the teacher must first actively engage the students' attention and then listen to their explanations of the sense they are making. Through monitoring the students' articulation of their ideas, the teacher can both follow and extend the students' learning. For Duckworth, then, the teacher is a very skilled professional, someone who can perceive both curriculum and pedagogical possibilities, and who is constantly endeavouring to understand more about his or her own practice. The practitioner is teacher, learner and researcher. In describing teaching as creating and sustaining the circumstances that make it possible for students to generate knowledge, Howard proceeds from a theory of learning whereby the learner constructs his or her own knowledge. Her view of teaching is thus closely connected with those of Duckworth, Shor and Oakeshott. For Howard, acquiring knowledge suggests activity, liveliness, expansiveness, it suggests intimacy and relationships. Acquiring knowledge means gaining perspective and balance. The teacher's task is to establish the environment where these characteristics can prevail.

Sizer looks for the qualities in good teaching: self-confidence that comes from both curriculum and pedagogical knowledge; judgement that comes from well developed learning theory and from knowing one's students; and adaptability, sensitivity and subtlety that enable the teacher to move with the rhythm of the class. Sizer concludes that teaching is science, art and craft. Shulman emphasises the intellectual basis for teaching performance, the capacity of a teacher to transform the content knowledge into forms that are pedagogically powerful and yet adaptive to the various needs of students. For Shulman reflection is a key component of the

teacher's pedagogical reasoning. There appears to be strong agreement between Sizer and Shulman.

Artful teaching is the goal of Ducharme and Kluender. Artful teaching is characterised by active engagement, a sense of wonder and excitement, promoting inquiry and discovery, raising provocative and compelling questions. Eisner, too, desires to foster artistry in teaching. When teaching is sensitive, intelligent, and creative, when it provides a climate which welcomes exploration and risk-taking and cultivates the disposition to play, he confers upon it the status of an art.

Implicit in these views of teaching are theories about the nature of learning: making connections, articulating thoughts to clarify, give order to and extend ideas, and constructing one's own knowledge. There are key ideas about the dialectical relationship between teacher and student, and about the nature of the teacher's work being to establish the conditions and disposition for learning to occur. There is a recognition of complexity and difficulty in the task of teaching, that teaching is a sophisticated operation, requiring higher order knowledge, understanding and the ability to think and act with sensitivity and subtlety.

When the incident occurred with which I began this chapter, phrases like 'active engagement' were not yet part of my vocabulary, in the sense that my thinking about my teaching was restricted to such factors as covering the course, planning the next lesson or sequence of lessons, and activities that 'worked'. A fair measure of chance contributed on that occasion to bringing together the conditions for active engagement in such a way that my thinking about my teaching was catapulted to a level that I could not have predicted. I was provided with an example of engagement to which I have ever since aspired. How could I come to understand more about my own teaching and about the motivation and learning of the students I taught, so that I could readily produce the conditions and disposition for genuinely active engagement?

If teachers are to be encouraged to develop increasing awareness of the nature of their work so that they can attend to their teaching in ever more productive ways, there is a need to know more about the nature of teaching. There is a need for teachers themselves to have more

understanding of their own teaching and learning, and of what it is they do to assist students to learn - how they establish the conditions and the disposition for the active engagement of the students they teach. Hence, the promotion of the conception of the teacher as teacher, learner and researcher, or as reflective practitioner.

Chapter 2

A Historical and Comparative Perspective on Professional Development: What can We Learn for Future Success?

... to focus on one spot in the web is to miss the nature of its interconnectedness.
Gregory Bateson (1972)

Holly (1989) commences her report of a comparative study of professional development in the United States and England by noting the commonly used descriptors of in-service education in both countries: 'Piecemeal', 'haphazard', 'one-shot' (p. 173). Add the epithet, 'one-off', and the descriptors are those that have been in recent usage in Australia. 'These words point to a common problem: the profession needs a conceptual framework that will provide direction and a context for individuals and groups of practitioners to shape continuing staff development' (p. 173).

This comment is supported by Bernier and McClelland (1989), who, with reference to the United States, observed that,

'the history of teacher education in the USA reflects a primary concern for initial or pre-service preparation of teachers. ... This emphasis continues to dominate debates concerning the improvement of teacher education. Within this context, in-service education programs and staff activities have been a secondary concern, lacking a shared conceptual base, consistent attention, and committed resources. Indeed, the professional development of teachers has been called, with some accuracy, "a shadow world".' (pp. 20-21)

Holly defines traditional in-service education as 'activities designed to improve skills, knowledge, attitudes, or techniques relative to teachers' roles, predominantly that of "instructor"' (p. 174). Until quite recently in-service activities were intended as training to enable teachers to bridge the gap between their knowledge and abilities and what they were expected to do.

... gradually the term *in-service training* was replaced by *professional development*. Whereas training was based on eradicating the 'deficiencies' of inadequately prepared teachers, development signified (if only symbolically) the continuing nature of career and lifelong learning for teachers.

Today, we are caught between these two images. Though we know that development continues throughout the life cycle ... ; and that effective teachers are 'searchers' who continue to grow and to become more cognitively complex and conceptually flexible ... , we continue to be influenced, perhaps unconsciously, by images of pathology and deficiency - thus, our preoccupation with 'improving' teachers. Consequently, teachers feel 'in-service' is something done *to them, not with them* (p. 175).

Bernier and McClelland offer an elaboration of this notion of deficit, by suggesting that a 'major assumption that has guided teacher education has been the view that successful completion of a pre-service teacher education program provides an individual with the status and knowledge required to be a teacher' and 'that such a status, once achieved, will establish positional authority for the duration of one's career'. This belief, they claim, 'serves to encourage resistance to in-service programs by individuals who view such efforts as questioning their competence' (pp. 33-34).

The focus for professional development has historically been the individual teacher, rather than teachers as a group, effectively reinforcing teacher isolation. The need to break down this isolation coupled with an awareness of the importance of teacher collegiality brought an emphasis on (whole) 'staff' development for school improvement. Recently, in both England and the United States, there has been an increasing trend towards the development of 'collaborative practices'.

Educational improvement ... is the next step. At this time we are focusing on all levels: the individual teacher, the staff, the school, and to a lesser degree, educational improvement. *All* are necessary for educational development and change (p. 175).

Commenting on the failure of efforts to reform schools during the 1960s and 1970s when there was a period of unprecedented curriculum reform which 'assumed that large scale implementation simply required a great deal of initial planning to insure curricula that were teacher-proof', Wideen (1987, p. 5) noted the reliance on short periods of in-service for

explaining curriculum materials to teachers. Wideen continues, 'Given the lack of attention paid to the problems teachers might have in the implementation of curriculum, or to the professional development required to gain appropriate understanding of such materials, it is not surprising in retrospect that little evidence for use of those materials exists today' (p. 1). Those experiences taught that 'there were many more curriculum-proof teachers than teacher-proof curricula' (p. 5). It is interesting to note one such experience:

When the new science programs were introduced [in the 1960s] ... in-service typically focused on the curriculum materials themselves, ignoring such things as the new skills that the teacher would require; the changes needed to implement that program into the classroom; and the different attitudes and perceptions upon which such programs were to be based (Wideen, p. 6).

A significant difference in the nature of professional development between the United States and Britain lies in the fact that, 'teachers in the United States must engage in academic, professional coursework at the university graduate level to move from initial or provisional certification to permanent certification and tenure' and they are 'encouraged to continue formal schooling through salary increments for additional credit hours earned' (Holly, pp. 184-5). For British teachers most professional development programs take the form of short courses which are neither award-bearing nor related to salary increments. Programs are frequently run through teachers' centres and offer teachers 'the potential to learn new ideas and grow in understanding of teaching and children, to work with colleagues, and to gain knowledge for curriculum development and leadership' (p. 185).

British teachers who are seeking career advancement 'may elect to go on a master's course or to work toward an advanced diploma, but these teachers are the exception rather than the rule. Long courses last for a year or two in which the teacher studies with a group of peers, and the typical emphasis is directed toward the teacher as researcher. Teachers and administrators taking the course develop as colleagues as they study together over time' (p. 185).

Another major difference between the educational systems of the two countries is that teachers in England have a higher degree of 'autonomy in

what and how they teach' - than do their American colleagues whose teaching is highly textbook oriented - with curriculum development likely to be an ongoing process 'integral to teaching' (Holly, p. 182).

Holly notes the important role in professional development of teachers' centres in England - and this is supported by Beeson, (1987) - in providing a forum for discussion, in contributing to a climate of change and in enabling teachers to keep abreast of local, regional and national developments in education. She comments, also, that in contrast to the American situation, 'perhaps because teachers in England are so active in curriculum development, the authorities and administration are generally supportive psychologically and financially of these professional development activities' (pp. 185-6).

In summary, professional development in the United States 'stresses academic preparation as well as continuing formal education' in a system where curriculum is more rigidly prescribed, while professional development in Britain places more support and emphasis on experience and school-based professional learning' (p. 189), in an education system which acknowledges the teacher's role in curriculum interpretation and which affords greater teacher autonomy. The term 'school-focused' is currently being used in England 'to describe activities that focus on the interests, needs and problems of a particular school, and hence not only focus on the needs of individual teachers, but on matters which need the co-ordinated effort of a group of staff. School-focused in-service education is seen as a more effective means of promoting lasting change in schools' (Beeson, p. 105). It is important to note that the term 'school-focused' implies that teachers' professional development is provided for both by means of programs conducted within the school and by attendance at externally conducted programs, in which teachers may be participating with colleagues from other school. This distinction attempts to overcome the problems of parochialism and 'institutionalised ignorance' which may be associated with the term 'school-based'.

Holly's study, which involved interviewing sixty teachers in England and the United States, indicated three common areas for consideration: 'the time and opportunity to share with and learn from colleagues; the relative importance of informal interactions in contrast with more formal and

structured activities ... ; and the relevance and integration of professional development experiences with teaching. The activities sought and valued by teachers are activities which connect with their experience while at the same time extend and enlarge this experience. That is, teachers seek alternative perspectives which both connect with the 'everyday' world of teaching but also move beyond it' (p. 197).

It is interesting to note some differences, highlighted by Holly, in the views of teachers from the two countries: 'USA teachers express value for collegial interactions and ideas yet they guard' (in apparent contradiction) 'their perceived independence and autonomy while teaching a standardized curriculum. In contrast, British teachers place greater reliance on colleagues, collaboration, and sharing while functioning uniquely and creatively in teaching and curriculum development' (p. 197). Yet, there are, of course, similarities between the two countries, including a current focus on accountability and appraisal. The effects on professional development of recent government policy initiatives in both countries are as yet unclear.

Teachers' classroom experience is shaped not only by the social milieu within which they teach and by the particular children they teach, but also by their backgrounds, their views of themselves and their goals. 'Their evolving identities as professionals and their striving for ever more adequate ways of teaching and learning are influenced heavily by their opportunities for professional renewal and by the climate and conditions within which they work' (p. 199). At their best, and in addition to contact with other teachers and teachers' own professional reading, professional development activities provide:

'opportunities for growth which build on and contribute to professional judgment, and which respect the complexity of teaching and engender trust while they open possibilities and support collegialship and perspective transformation.

The power to pose one's own professional development questions and to enter into discussion and dialogue with colleagues and others pertaining to these ... keeps alive the spirit of inquiry and the wonder of teaching' (p. 199).

In Australia, 'teacher education as a continuing career-long concern has ... [achieved] major emphasis only in the past fifteen years' (Hughes, 1987, p.

4). 'Provision of in-service education was minimal, despite the need of teachers to cope with the flood of new curricula which entered the schools during the late 1960s and early 1970s' (Beeson, 1987, p. 107).

Hughes sees the Australian interest in professional development as 'part of a wider interest which can be seen in countries such as Britain and the United States.' He attributes the growth in teachers' interest in professional development to less prescriptive teaching programs and decreased emphasis on public examinations, which brought teachers to recognise 'the need to become better equipped in curriculum design and development'. Greater stability of teaching staff, fewer opportunities for promotion and teachers' expectations of longer teaching careers provided further impetus. These factors clearly indicate that 'if changes are to occur and this, in today's society, is inevitable, then they can only occur through changes in the approach of teachers' (p. 4).

The Commonwealth Schools Commission (1973-88) provided substantial encouragement for the growing interest in professional development. Professional development was defined as 'all the planned experiences which a qualified teacher may undergo for the purpose of extending his professional competence' (Karmel, 1973 - quoted in Hughes, p.5). The Commission believed 'that teachers should take a leading role in forming the directions of professional development', that teacher-initiated and school-based in-service education should be emphasised and initiated, and supported teachers' centres as centres for teachers' professional development. Thus, for the first time, teachers were given 'a greater role in defining the direction and nature of their own professional expertise' (p. 5).

A great variety of innovations in in-service education resulted, including programs of widely varying content, length, and degree of formality initiated by employers, teachers, and other relevant groups. In addition, in-service activities were further facilitated through Commonwealth funded education centres. This period was one of marked increase in opportunities for professional development for teachers. (Beeson, p. 107)

Since the early 1970s the tertiary institutions have been increasingly involved in professional development through the provision of award-bearing in-service programs at both undergraduate and postgraduate

levels. The Centre for Continuing Education of Teachers (CCET) in Tasmania is a model of a very 'productive liaison' (Hughes, p. 5) between the tertiary institutions (University of Tasmania and Tasmanian State Institute of Technology) and the Education Department, and involving the non-government schools and teacher unions, for the planning and implementation of programs of study for teachers in schools. 'Crucial to that planning is the involvement of teachers and schools in deciding on the focus, the location and the nature of such courses' (p. 6).

Three of the underlying assumptions and principles which informed the 1984 National Review of Teacher Education, undertaken by Ingvarson and Coulter, were the supreme importance of teachers as an educational resource, the need for greater teacher participation at all levels in policy-making related to professional development and the close link between educational quality and the quality of teaching, which is enhanced by on-going professional development. They concluded:

If ... policy is to lead to change it must be through what teachers do, how they do it, and what it means to them. ... As long as there is a need for improvement in education, there will be a need for professional development. (Ingvarson and Coulter, 1987, p. 315)

Yet, the authors identified a recent decline in in-service education provision, despite an increased need arising from changes in the career patterns of teachers, changing and increasing expectations of the teacher's role, and changes in education priorities and the emergence of new curricula associated with these priorities. Factors responsible for this decline included a reduction in the overall funding available and a lack of co-ordination at the national and state levels (Beeson, p. 109).

Both Hughes and Beeson identify a number of clear trends in belief about professional development that have emerged in recent years. The major directions parallel developments in the United States and the United Kingdom. These trends include:

- Pre-service training is incomplete and is necessarily only a beginning of a career of self-motivated professional development.
- Professional development should be closely related to the development, implementation and evaluation of the school curriculum. ...

- Continuing research and development is central to the enhancement of teacher education programs. (Hughes, pp. 7-8)
- There is a strong link between the quality of education and the quality of teaching. A sub-set of this relationship is the link between curriculum development and teacher development.
- School-focused in-service education is potentially a powerful method for improving the quality of teaching. (Beeson, p. 110)

Lamenting the demise of the Commonwealth Schools Commission, Collins (1988) comments: 'We are at a point in the history of schooling in Australia where professional development matters to an extent which we are only now beginning to grasp' (p. 220). Supporting many of the comments made earlier, she enunciates five tasks facing teacher development, which need to be tackled by an ageing teaching force:

First, because of a group of interrelated structural changes - changes in technology, in our economic relations with the rest of the world, and in our own social fabric - schools are being asked to take on a whole range of new tasks and to alter what they do in fundamental ways. ...

Second ... There has been a strengthening of the resolve that schools deal justly across social groups ... in relation to girls, to Aboriginal children, to rural children, to children from minority cultures and social groups, and to disabled children. ...

Third, there have been crucial changes in the knowledge base on which educators construct their professional lives. Perhaps most fundamentally, the positivist notion ... that it is possible to put together a neutral, factual curriculum, has been effectively demolished. ...

Fourth, more is demanded of teachers and principals ... through changes in the structure of schooling itself. ... fewer decisions are made centrally than was the case a dozen years ago, and more curricular expertise is required of staff at school level. ...

Finally, ... all these pressures on schools require a new political wisdom from teachers. ... What is needed is the opportunity to develop defensible, professional views on what schools are for and can realistically do, so that proposals can be accepted or parried on their merits. (pp. 220-221)

Informed by research, Collins makes a number of key points which should be taken into account when addressing the professional development agenda she has offered (pp. 222-225). These can be summarised:

- teachers are competent, adult professionals who learn best when they identify their learning needs, plan much of their own learning, and have the opportunity to try out, discuss, observe others, reflect, evaluate, and rediagnose;
- schooling must be reconceptualised and restructured to break down teacher isolation for effective professional development requires collegiality; observation, feedback, consultation and reflection, planning and evaluating, all require working with peers;
- developing new skills and incorporating new ideas into practice requires considerable time; time is necessary for the collegial, adult learning effort which results in professional growth;
- the most crucial professional development is that which is built into the school itself and is part of the normal cycle of a school's renewal;
- the cooperation and collaboration of tertiary institutions and schools may assist the most difficult professional development issues to be tackled.

Teachers Learning, the Report of the Inservice Teacher Education Project (1988) gave a summary critique of the 'flaws which can be found in many programs in Australia':

- one-shot conferences which do not have follow through and recall are widespread;
- topics are frequently not well connected with the priorities of schools;
- follow-up support for ideas and practices introduced in programs occurs only in a very small minority of cases;

- programs rarely address the direct needs and concerns of the participants;
- the majority of programs involve teachers from many different schools or regions, but there is no recognition of the differential impact of positive or negative factors within the schools to which they must return - and operate;
- there is a lack of long-term and systematic planning of programs to ensure their effectiveness. (p. 12)

Based on a 'review of the successful practices identified by education authorities and the teaching profession and a study of the research literature on adult learning and teacher development', Teachers Learning identified a number of 'principles of good practice'. Among these is the concept of adult learning, 'because learning is at the heart of all inservice teacher education, knowing, understanding and being able to apply sound principles of adult learning is fundamental to effective training and development planning and delivery' (p. 27).

Adult learning

Effective teacher training and development recognises that teachers are learners who need to relate new knowledge to their career and classroom experiences; who need to apply and critically evaluate new practices in their own contexts; and who require support and encouragement throughout the process.

Other 'principles of good practice' include:

Delivery Modes

Effective teacher training and development recognises the contribution that both innovation-focused and action research delivery modes make to teachers' learning and it balances and supports these modes over time.

Setting and Focus

Effective teacher training and development provides a conducive setting and uses the school as its principal focus because of its pivotal role in the development and application of ideas, the practice and sharpening of skills, and the critical appraisal of curriculum programs.

Control

Effective teacher training and development education involves joint planning and collaborative control over program planning and implementation by stakeholders with a commitment to the outcomes of the activity.

Subject Matter

Effective teacher training and development critically applies the results of educational research in recognised disciplines and new knowledge fields.

Evaluation

Effective teacher training and development moves beyond justificatory evaluation to conscientiously assess its impact on students and their learning, on teachers and their teaching, and on the educational enterprise itself.

This brief description of professional development, as it has been practised in Britain, the United States and Australia, offers directions for the development of successful professional development programs.

First and foremost, 'in-service education is not something that is done to teachers. It is a vehicle for enhancing the autonomy and professional self-esteem of teachers, as well as a means of improving the level of teaching skill and competence' (Ingvarson and Coulter, p. 315).

Next, there is a long-standing recognition that no pre-service teacher education can equip a teacher for a lifelong career. In a time of social flux and when there is a continually expanding knowledge base, 'the need for continued professional growth among teachers takes on a critical new importance' (Wideen, 1987, p. 13). Recent research on educational change shows clearly that in-service education is crucial for the implementation of any policy for educational improvement (Ingvarson and Coulter, 1987, p. 298).

Single approaches to staff development are usually ineffective, while comprehensive, collaborative ones have greater likelihood of success (Ingvarson and Coulter, Wideen). Beeson noted that a primary concern in

England is to make 'a collaborative model of staff development work. The concern reflects the view that unless teachers feel they are contributing to their own professional development, they are unlikely to be committed to take part' (p. 105). In like vein, Ingvarson and Coulter commented on the necessity for teachers to participate in policy-making about their own professional development, 'if the degree of commitment from teachers ... necessary for its effectiveness is to be generated' (p. 315). Wideen noted that teacher control and ownership are not easy to generate (p. 1).

Teachers are pivotal in the process of change; teachers are partners and the prime movers. Teachers are coming to be recognised as adult learners, excellent learners, with individual learning styles, requiring not only theory presentation and demonstration, in the case of new approaches to teaching, but also feedback, practice and coaching (Wideen, pp. 5-6).

Bernier and McClelland comment on a tendency, in professional development programs, 'to separate the teaching function from the learning activities within an educational activity'. They recall Margaret Lindsey's question (1978):

'I wonder whether the real foundation is not to be found in professional practice. Is not *practice* the core and are not the *disciplines* now called foundational actually the supporting fields, the knowledge and methods that facilitate the study of practice?'

The foundation of education is the teaching-learning process as it occurs within an educational setting. It is the *transaction*, in all its complexity, which should be the focus in studying the fundamental nature of the teaching-learning process. (p. 37-38)

Although I do not wish to enter the controversy concerning learning theory, this is a crucial point. On the failure of many professional development programs to take account of the range and complexity of adult learning styles, Bernier and McClelland contend that 'the adult learner continues to be a "neglected species".' They note that teachers are 'often denied the opportunity to participate actively as fully functioning individuals in the teaching-learning transaction', and that teachers are often critical at being omitted from the planning process, or at the way in-service activities are carried out. 'In either case, the learner is treated as a

child.' The 'unique learning styles of the participants [must] serve as a base from which to develop educational opportunities.'

Androgogy places learning at the centre of the teaching-learning process and requires that teachers possess the flexibility and the perceptiveness which enable them to adapt to the idiosyncratic learning styles of students. As biographies become more elaborate with age, so too do learning modes become more complex. (pp. 38-39)

The importance of a school focus is now generally recognised with the individual school accepted as the key unit for affecting improvement within the formal education system. 'Teachers are at the centre of any improvement effort and it must be assumed that the work of the teacher and the visions teachers have about improving their work provide a starting point. The differences among teachers and the uniqueness of a school staff that results from the combined sum of these differences must be valued. Collaboration, collegiality and mutual adaptation are the necessary ingredients in any school improvement plan (Wideen, p. 5). Successful staff development is 'context sensitive' (Griffin, 1987, p.34).

It was in terms of a school-focus that Eric Hewton (1988) defined staff development as: 'all the strategies employed by trainers and teachers in partnership to direct training programmes in such a way as to meet the identified needs of the school, and to raise the standards of teaching and learning in the classroom'. This definition appears to acknowledge teachers as professionals with their individual as well as group needs.

The contribution of professional development to teachers' autonomy and self-esteem has already been noted. Nias (1989) describes teaching as:

an occupation which makes calls upon the personality, experience, preferences, skills, attitudes, beliefs, values, interpersonal qualities, and ideas of the individual practitioner. The culture and physical context of schools, together with the historical and philosophical traditions of primary teaching and the resulting way in which the activity is often defined, all create a situation in which *who and what people perceive themselves to be* matters as much as *what they can do*. (Nias, 1989, pp. 167-8)

Nias is writing about primary teachers, but it seems to me that the point she is making about the teacher's sense of identity and professional

commitment applies to teachers at every level of schooling, as does the equally crucial point about culture and context.

The cultural dimension of education must be mentioned as it is a factor affecting the teaching-learning process that may often be overlooked in considering professional development activities. Bernier and McClelland describe schools as 'culture-bearing settings.'

Teachers belong to an occupational community and also perform their professional activities as actors in an organisation. While the manifest functions of the school as an organisation and the professional commitments and skills of the teacher are often in consonance, the latent functions of school organisations often conflict with professional educational goals. The literature concerning the hidden curriculum reveals clearly that latent functions of schools often serve to inhibit educational aims. (p. 41)

Bernier and McClelland observe that 'organisational realities rather than professional affiliations [tend to] define the perceptions and behaviours of teachers'(p. 41), and note further 'sources of difficulty'. 'Teachers belong to and must consider their membership in a variety of cultural worlds', which may conflict with one another or which may be individual sources of conflict. There may also be a more subtle conflict, in that, although the continuing improvement of education is a central priority in each case, 'the modes and methods which each perceives as necessary for accomplishing such improvement may differ in significance and in conflicting ways' (p. 42).

Firstly, teachers are members of the organisational culture of the school, which has become 'ever more bureaucratic in structure', and in which we have already noted conflicting goals. Secondly, through their membership of professional organisations teachers are participants in the professional culture; this culture may provide a sense of community stronger than that of the school, especially, for example, among members of a professional organisation based on subject specialisation. Thirdly, they are members of 'the culture of teacher education' (p. 42), where again there may be tension. While the main concern of their academic colleagues may be to maintain intellectual rigour, classroom teachers struggle to maintain a professional identity in a school organisation often dominated by social and bureaucratic pressures which emphasise non-educational goals, such

as the goal of socialisation for pupils (p. 46). This tension is demonstrated in the location of teachers' centres on 'neutral ground'.

Factors such as these may serve to explain many of the failures or successes of professional development activities. An example of this is the current preference for school-focused activities with their greater likelihood of bringing about change, because for any of the teachers involved, 'self-identification with the world within the classroom is [likely to be] shared by others in the school' (p. 46). The conflict between organisational and professional, or occupational, assumptions can have major impact. This is depicted in the following definition of an occupational community, which has four elements.

Each is separate analytically but interconnected empirically. By occupational community, we mean a group of people who consider themselves to be engaged in the same sort of work; who identify (more or less positively) with their work; who share a set of values, norms and perspectives that apply to, but extend beyond, work related matters; and whose social relationships meld the realms of work and leisure. (Van Maanen and Barley, 1984, cited in Bernier and McClelland, p. 43)

Teachers are, of course, professionally active in a range of ways, through professional associations, collegial friendships and their personal professional development. Bernier and McClelland cite Van Maanen and Barley again, who observe:

The ongoing struggle of stable and shifting, formal and informal, large and small groups to develop and occupy some niche in the occupational structure of society is played out every day in organisations where rational and administrative principles of control (e.g., ... hierarchical discipline ...) compete with traditional or communal principles of control (e.g., peer pressure, work ideology, valued symbols, etc.) (p. 43)

With a final comment from Bernier and McClelland on the importance of distinguishing between these significant 'work realities' in considering professional development, I leave this very brief mention of cultural factors which impinge on teachers' learning.

Professional staff development in education is at a crossroads. In one direction lies an arbitrary, imposed, pedagogically designed and bureaucratically structured delivery system that would result from

political and economic debates rather than dialogues about educational policies and practices. In another direction lies participant-involved planning, collaborative efforts, shared authority and responsibility among the various educational communities and the public, and programs designed according to a view of lifelong learning designed for self-affirming adults who view their professional development as a vital aspect of their personal growth. (p. 48)

In stressing 'the difficulties, complexities and neglect of the problem of accomplishing sustained real change at the level of practice', Michael Fullan (1987) cites three interrelated sets of reasons why staff development frequently fails to bring about the desired change. Firstly, there is the problem that staff development is not always understood as change; secondly, confusion and differing assumptions frequently surround the goals of staff development; and thirdly, in addition to understanding what the change means, staff development efforts often neglect to attend to the problem of how an initiative is to be implemented (p. 213).

'Staff development is synonymous with change' (p. 214). Everything we know about what change is and how it occurs is critical to any approach to staff development.

Fullan reminds us that a curriculum change might involve changes to learning materials; to learning activities, involving teaching practices; and to beliefs or understandings. Changes in teaching practices are more difficult to contend with than different teaching materials, but changes in beliefs or understandings involve adjustments of philosophy, conceptual frameworks or pedagogical theory. Such changes in practices and beliefs - in doing and thinking - are the essence of Fullan's view of staff development. They require learning something new: staff development is change; change is learning; therefore, staff development is learning (p. 214).

This explains why many attempts at change fail.

Once-only workshops, pre-implementation training without follow-up, professional isolationism of teachers, constant top-down policy making which stifles or does not stimulate professional learning, formal courses unconnected to the job and to the real life of the organisation have little or no impact because they are not designed to provide the conditions for ongoing, interactive,

cumulative learning necessary to develop or evolve new skills, behaviours and conceptions in practice. (pp. 214-5)

In common with other writers mentioned above, Fullan identifies four factors crucial to achieving substantial staff development:

- redefining staff development as a process of learning,
- the role of leadership at the school level,
- the organisational culture at the school level, and
- the role of external agencies, especially at the local or regional level.

Finally, Fullan believes 'that the field of staff development is best served by promoting [a] diversity of approaches. We simply do not know enough at this point to recommend a narrowing of the alternative approaches' (p. 219). He draws attention to two problematic aspects of planned changes for staff development:

the first is the neglect of 'how' questions or questions of implementation; the second is more subtle, namely, that even when implementation questions are addressed we must be aware of the problem of implementing the implementation plan.

The first question [goes] ... beyond ... 'what' is needed in staff development ... [and concerns] an analysis of the ins and outs of how one might move in a particular direction. ...

... [The second question concerns] when and where to start, how to start, what is the role of plans, is it better to go with volunteers, how one might expand, and so on. (pp. 219-220)

These comments on teachers' learning and on the difficult and complex nature of the culture of education serve to illuminate, to some extent, successes and failures in much professional development provision. In this light, the success of school based staff development programs is no surprise, especially 'where self-identification with the world within the classroom is shared by others in the school' (Bernier and McClelland, p. 46).

In this light, also, can be understood the failure of professional development programs to bring about desired change, when they ignore the complexity of the teaching and learning process. By this I mean the

complexity of the teaching and learning process in the classroom, in which teachers and pupils are the main actors, as well as the complexity of the teaching and learning process which takes place in professional development activities.

Professional development programs must be relevant to and integrate with teachers' teaching. They must take account of the teacher as learner and teacher, with considerable experience of both learning and teaching, and they must allow time for learning and practice to be comfortably accommodated within a cultural environment which may be characterised by competing tensions. Most importantly, it must be recognised that professional development affects teachers' identities as teachers and impacts on their theories of teaching as well as on their teaching practice. Professional development activities which presume an inaccurate and simplistic conception of the work of the teacher and of the teacher as professional are doomed to failure. It is to the work of the teacher that I wish to turn now.

Chapter 3

Models of Teaching and Teachers' Knowledge

It is teachers who, in the end, will change the world of the school by understanding it.

Lawrence Stenhouse (1975)

We have all heard a strongly insistent message in our culture: there are the cognoscenti, and then there are the rest of us.

Margaret Yonemura (1986)

What are the ways in which we view or construe teaching? What kinds of knowledge, practical application and personal attributes are involved in teaching? Consideration of questions such as these leads us to consider also current approaches to professional development and the extent to which they are congruent with our understandings and beliefs about teaching. Are prevailing attitudes to professional development constrained or skewed by views of the teacher's work which are, in fact, narrow or awry? Is there, indeed, a mismatch between views of teaching which most accurately reflect the nature of the teacher's work and the assumptions which underpin traditional approaches to professional development, as outlined in the previous chapter? In seeking answers to these questions I wish to construct a theory of how teachers acquire the knowledge which supports and sustains their classroom practice; the challenge then is to apply this understanding to approaches to professional development. As Blackman says, 'How we view professional development is a direct outgrowth of the way in which we view teacher roles' (1989, p. 2), and of the way we view teaching. Hence, if we view the role of the teacher in technicist terms, as being the application of practical skills which are devised as the result of research conducted by researchers external to the teaching process, then we would see the purpose of professional development as the transmission or development of skills.

Tom (1987) traces four conceptions of teaching: teaching as craft, as applied science, as fine art, and as moral endeavour. That teaching has been variously labelled as craft, science, and art, and that now Tom submits the notion of teaching as moral endeavour, begs the question of why teaching should be considered as something else. The answer lies perhaps in the efforts of educators and researchers to find ways of describing and explaining both the teaching process and particular acts of teaching.

I recall the variety of descriptions of teaching, which contributed to my earlier chapter on the nature of teaching, and which mostly provided rich but imprecise portrayals. But in particular, I recall my disappointment and surprise at Shulman's (1987) somewhat unsatisfying attempt, and one admitted by him as such, to provide a 'core conception of teaching'. What such descriptions demonstrate, of course, is the difficulty we have in finding words that are adequate to the depiction of the human endeavour we know as teaching and which we recognise as being richly varied and multi-layered in its enactment. Thus, in the struggle to describe teaching, researchers have looked to other areas of human endeavour in search of comparisons or models. They have found a conception based on an explicit comparison to provide a means of illuminating teaching, so that it can be studied and so that the practice of teaching can be learned by prospective teachers or improved by practising teachers. Tom expresses reservations about such faith in increased pedagogical knowledge, suggesting that it is only a 'minor element of improved teaching', and that it fails to recognise the complex, interactive nature of teaching and fails to acknowledge [its] fundamental normative roots' (p. 9).

To suggest that a comparison can serve to illuminate the practice of teaching is by no means to stipulate that teaching equates to a craft, or science, or art, or moral endeavour, but it can be helpful in enabling us to recognise some of the distinctive features of teachers' professional behaviour and some of the ways in which teaching can be effectively practised. However, we must also recognise that any one comparison, because it is a comparison and not the endeavour itself, is extremely unlikely to exhaust the range of forms of human behaviour which can be identified as teaching. It is in this sense that any conception of teaching is necessarily accompanied by disadvantages as well as advantages. It is the

disadvantages, which relate to the inadequacy of a particular conception, that provide the basis for the subsequent rejection of that conception.

It is interesting to note that Tom, having traced the development of three conceptions of the nature of teaching, as craft, science and art, and then having posited a fourth conception, that of teaching as moral endeavour, nevertheless admits that he is not certain how his conception contributes helpful knowledge to the study of teaching. Keeping in mind the richness of teaching as an activity and as an endeavour to facilitate learning, and the difficulty of adequately describing it which we have already noted, we may gain most from focusing on the advantages that each of the conceptions of teaching have to offer, in that each conception may serve to illuminate particular aspects of teaching which the others cannot but ignore. Such illumination, of course, not only helps us to understand more about the teacher's work, but also assists in the determination of professional development processes and practices which will genuinely support teaching.

The first of the four conceptions of teaching identified by Tom sees teaching as a craft. According to Tom, this conception is based on the belief 'that the essence of teaching is found in the "how-to" knowledge teachers have accumulated over the years and occasionally codified' (p. 10). Thus, commonsense and folklore provide the sources of knowledge about teaching and it is on this basis that such a conception can be criticised. A tried-and-true methodology founded on past practice and accepted without question is essentially conservative as well as simplistic, emphasising the teacher's point of view and being 'inattentive to the normative elements of teaching practice'. Blackman points out that 'if we view the teacher as the applier of a craft, then we will focus professional development primarily upon the methods and techniques of teaching' (p. 2), implying a concomitant neglect of any intellectual discourse which focuses on intentions and strategies.

Earlier this century, educational researchers, whose orientation was the social sciences and who intended to legitimate knowledge about teaching, developed a view of teaching as applied science. This view carried an expectation of discovering 'scientific generalisations or laws about teaching-learning phenomena, and [that] subsequently teachers would

"apply" these findings to the concrete problems of classroom practice' (Tom, p.10). I will show later how this view of teaching has dominated 'respectable' thinking about education. Outcomes of this view include process-product research and such behavioural approaches as mastery learning. Tom criticises the conception of teaching as applied science on the basis that 'discipline-based findings on teaching-learning relationships have tended to be inconclusive, if not contradictory, narrowly focused on a variable or two, hard to relate to complex practical situations, and insensitive to normative components of teaching' (p. 11).

Smyth (1987a) contends that, 'those who argue that teaching should have a demonstrated scientific basis to it ... and that teaching should adhere closely to prescriptions deriving from such research ... ignore the degree to which practitioner-derived knowledge is, in fact, trustworthy and relevant' (p. 1). Questioning the processes by which understandings are derived from research findings, Smyth adds that the value of such research is misconstrued. 'The scene is more likely to be characterised today,' he says, 'by statements like: "Meaning in context: is there any other kind?"' (Smyth, 1987a, (citing Mishler, 1979) p. 1)

Beyer (1987) similarly rejects an 'affiliation between education and science', labelling it as 'both hasty and unproductive', on the basis that 'the canons of empiricist science [do not] serve to legitimate educational theory or practice with any degree of certainty'. Yet, he continues, 'the dominant culture in teacher education has embraced the tenets of positivism and technical rationality' (p. 19). This is seen today in the widespread acceptance of newer forms of competency-based teacher education and in the fostering of specific and narrow teaching skills, as in the direct instruction and skill-based curriculum development models.

The effect ... has been to trivialize the relationship between teacher and learner by assigning to the teacher the role of technical, value-free behaviour manager. Education is viewed as a problem in systems management and human engineering, while the solutions to the problems of teacher education are seen to lie within the grasp of 'science' and technology. The moral and political issues embedded in the ongoing processes of teacher education are obscured as teacher educators focus their attention exclusively upon procedures to attain ends which are not openly examined. (Beyer, pp. 20-21)

In discussing attempts to find a scientific basis for judging teacher competence, Elliott (1989) comments:

Given a degree of consensus about the purposes of teaching - its intended learning outcomes - it should be possible through process-product research to identify the most effective methods for achieving them. ... there have been numerous attempts to discover statistical correlations between kinds of teaching behaviour and types of learning outcome ... The aspiration underlying it is the discovery of general rules for defining competent practice. None of the research findings has proved very conclusive. (pp. 239-40)

Elliott divides criticism of such research into two categories. The first is technical, concerning methods and procedures. Since teaching is so complex in nature, the mere fact that an outcome is seen to happen regularly in conjunction with a particular method is insufficient reason to infer causality. The second category Elliott identifies is conceptual. By way of example, he discusses the relative emphasis on quantifiable rather than qualitative learning outcomes, stressing the amount of learning and ignoring its quality.

Quantifiable learning outcomes are those derived from such lower order learning strategies as simple memory or algorithmic problem-solving tasks and involve teachers in using formal rather than informal teaching methods. Qualitative learning outcomes are much more difficult for teachers to predict and control, yet they depend on higher order understanding tasks where there is ambiguity and they require a high degree of judgement. This is because understanding tasks depend on 'factors in the personalities and life histories of learners which are difficult for teachers to anticipate and control' (p. 241). The most credible correlations are established only where pupils have been working on simple memory or algorithmic problem-solving tasks. And for these tasks teachers employ formal teaching methods which give them a 'high degree of control over learning outcomes by minimising pupils' opportunities for independent judgement, and thereby reducing the risk' of failure (p. 241).

If effectiveness in maximising quantifiable learning outcomes is a criterion of competent teaching, then teaching using formal methods

appears more competent than teaching using informal methods. Yet it is informal teaching methods that 'protect and foster the exercise of independent and autonomous judgement' (Elliott, p. 241) necessary for higher-order understanding tasks. Educationally valuable learning is learning how to learn, developing an inquiring mind, the experience of discovering things for oneself, learning with understanding, not independent of the acquisition. 'Teaching is not a matter of *causally determining* what students learn, but of *enabling* them to take responsibility for their own learning.' It is therefore necessary to 'distinguish teaching which exerts a *causal influence* on learning' from 'teaching which exerts an *enabling influence*'; the former involves quantifiable research which by its nature is measurable and predictable, while the latter involves qualitative methods and not the empirical methods of science (Elliott, pp. 241-42).

In contrast, Stenhouse (1975) takes the view of teaching as science and turns it to his own ends. Stenhouse says that educational ideas, as they are expressed in books, 'are not easily taken into possession' by teachers, whereas expressing educational 'ideas as curriculum specifications exposes them to testing by teachers, and hence establishes an equality of discourse between the proposer and those who assess his proposal'. It is this idea that engenders the concept of teaching as an educational science, where each classroom becomes a laboratory, and each teacher, operating as scientist, becomes 'a member of the scientific community' (p. 142).

The curriculum is not seen as something which has been scientifically derived, an unqualified recommendation, but rather as a 'provisional specification' for the practice of teaching, 'claiming no more than to be worth putting to the test of practice'. In other words, the curriculum becomes a means of 'translating any educational idea into a hypothesis testable in practice' (p. 142). Curriculum implementation, which is necessarily the task of the individual teacher, becomes 'a means of studying the problems and effects of implementing any defined line of teaching'. And since every classroom is unique, any curriculum proposal must be tested, verified and adapted by each teacher in each classroom. The ideal for Stenhouse, then, is that 'the curriculum specification should feed a teacher's personal research and development program through

which he is progressively increasing his understanding of his own work and hence bettering his teaching' (p. 143).

And so we have the genesis of the notion of teacher as researcher, which has been mentioned earlier, and to which I intend to return.

The third conception of teaching identified by Tom is that of teaching as fine art. 'Perhaps in part as a reaction to the simplistic idea that teaching could be reduced to an applied science, a rival view emerged mid-way through the century, a ... fine arts conception of teaching, ... [a view of teaching] as an aesthetic activity' (Tom, p. 11). In this view, teaching 'can be conceived of as an unfolding activity whose ends are often created in process, an activity influenced by events and contingencies more than by routines and prescriptions.' In criticism of this view of teaching Tom finds that 'a fundamental difference between the fine arts and teaching practice involves the criteria by which the quality of each is judged. In the fine arts judgements of quality are grounded in aesthetic standards, while such criteria are of secondary importance in teaching. The stress in teaching is on the practical impact of the message to be communicated, not on the beauty of the communication effort. In addition, the fine arts conception of teaching ignores the normative component of teaching' (p. 11).

These comments seem to carry an overly harsh criticism of Eisner (1979), one of the major proponents of the view of teaching as artistic activity, and who was mentioned in Chapter 1. Because 'scientific assumptions and procedures do not exhaust the forms of knowledge and the methods of inquiry that humans use to give shape to the world', Eisner's aim was to find a complementary approach to the view of teaching as science. 'To distinguish between art and science,' he says, 'is not to put them into competition but to recognise the distinctive ways in which they operate' (p. vii). His belief was that 'the study of education needs, ... not a new orthodoxy, but rather a variety of new assumptions and methods that will help us appreciate the richness of educational practice, that will be useful for revealing the subtleties of its consequences for all to see' (p. 19).

Eisner contends that educational activity is like the artistry of a painter, who:

cope with emerging visual configurations on a canvas. Each stroke alters the pattern, each new colour changes the whole. This dynamic seeks ultimately a happy resolution: the realization of artistic virtue through the creation of an organic entity that "works". As the artist articulates new problems, new decisions must be made; when old decisions become routine (a part of the artist's stock response), new questions must be formulated so that new solutions can be sought. The joy of the ride, even more than the arrival, is the motive force behind the artist's work. (pp. ix-x)

Eisner offers four senses in which teaching can be considered as art: 'teaching as a source of aesthetic experience, as dependent on the perception and control of qualities, as a heuristic or adventitious activity, and as seeking emergent ends' (p. 155).

Firstly, the skill and grace, and the intrinsic satisfaction of some teaching performances justifiably characterises them as aesthetic, for both teacher and students. Secondly, the qualitative judgement a teacher exercises in selecting, controlling, organising and responding to such classroom qualities as ambience, tone, pace of discussion and forward movement, corresponds to the judgement exercised in the responses of artists or composers to the emerging works of art. Thirdly, teaching requires routines, yet because the teacher must function in an innovative way to cope with contingencies, teaching cannot be dominated by routines; rather the teacher needs repertoires on which to draw, so that energy and attention can be devoted to what is emerging in the class. 'It is precisely the tension between automaticity and inventiveness that makes teaching, like any other art, so complex an undertaking.' Eisner's fourth sense in which teaching is an art concerns the way 'the ends it achieves are often created in process. ... Many of the ends achieved are emergent - that is to say, found in the course of interaction with students rather than preconceived and efficiently attained.' This does not imply that there are no situations where 'preconceived ends are formulated', but it does imply that a model of teaching akin to arts is necessary to afford opportunities for emergent ends. (pp. 153-5)

Conceiving teaching as art has a benefit, that is perhaps unintended, in that it offers teachers a legitimate source of satisfaction for their efforts. 'The human need for pride in craftsmanship and being able to put something of oneself into work is recognised' widely. The school that

provides 'the conditions where such needs can be met' is likely to be one where 'the existence of optimal conditions for the educational growth of students is ... assured' (p. 167).

The fourth conception of teaching Tom traces is that of teaching as moral endeavour, a conception which he first developed in a 1984 publication. Tom considers this conception to be superior to the prior three, in that it takes into account both the moral obligations inherent in the profession of teaching and the tasks which define the work of teaching. This view 'draws upon the practical arts more than the fine arts, and gives central importance to the moral dimension of teaching' (p. 11). Tom articulates two senses in which he uses the term 'moral'. In the first he brings to mind the unequal power distribution between teacher and student, an inequality, he says, which makes their relationship 'inherently moral'. Tom draws to our attention two dimensions to the teacher-student relationship: on the one hand the student accepts the teacher's good judgement and control; on the other, the teacher tacitly agrees that the power of control will not be exploited and that his or her obligations to the student will be met, that is, in terms of enhancing the competence and extending the independence of the student. 'By accepting this obligation for fostering these desirable outcomes, the teacher assumes moral responsibility for the student' (p. 11).

In a second sense in which teaching can be viewed as a moral endeavour, Tom reminds us of the presupposition that what is to be taught is worthwhile, and thus draws to our attention the moral basis for the selection of curriculum content. 'Even when the teacher begins planning by selecting interesting content rather than first specifying objectives ... the teacher still needs to choose among the universe of teaching content. This selection cannot be arbitrary, or we would fail to see the subsequent teaching as being educational' (pp. 11-12).

When Tom considers the activity that defines the work of teaching, he finds that teaching has a problematic basis: 'Teaching is also akin to such practical arts as coaching, gardening, and fishing in which certain ends, presumed to be valuable, are pursued with strategies which sometimes work and other times fail.' Viewing teaching this way reveals its characteristics as a craft, but it is a more sophisticated craft than that

discussed earlier, involving much more than just rules of thumb. While there are routines, the teaching craft also 'involves keen analysis and measured decisions' as well as 'skilled performance' (pp. 12-13).

Tom summarises his position:

In a fundamental way, viewing teaching as a moral endeavour brings together two divergent aspects of teaching. On the one hand, questions having to do with the moral nature of student-teacher relationships and of the selection of worthwhile content are placed side-by-side with questions concerning the daily interaction of teacher and student for the purpose of learning certain curricular content. (p. 13)

Tom claims that a conception of teaching as moral endeavour attends to both the normative and empirical aspects of teaching. 'To view teaching as equally, and concurrently, focused on craft and moral practical issues seems to be a more adequate view than to reduce teaching to an applied science, or to a fine art, or to a folklore-based craft' (p. 13). 'The essence of good teaching,' Tom says, 'is the ability to meld together the concerns embodied in both craft and moral pedagogical questions' (p. 17).

Having rejected a conception of teaching as applied science, Elliott (1989) takes up Tom's conception of teaching as a moral activity, extending it to develop a conception of teaching as a moral science.

Elliott suggests that teaching is 'best conceived as a form of communicative interaction governed by binding consensual norms which define teachers' moral obligations towards their pupils' (p. 247), and herein lies a difficulty for every teacher, that of reconciling in practice the moral and technical dimensions of teaching. 'Self-aware teachers come to effect what might be regarded as "reasonable compromises".'

Viewing teaching as moral practice means that we view teachers as practitioners of an ethic, and this in turn, enables them to be seen 'as members of a profession. But when their activity is viewed as a kind of technology then their status may simply be reduced to that of technician.' Thus Elliott identifies two interrelated components of professional practice: 'commitment to the practice of an ethic', and 'the possession of expert knowledge' (p. 249); and it is in this development from Tom's

conception of teaching as a moral endeavour that Elliott provides us with a more adequate depiction, than does Tom, of the nature of the teacher's knowledge and practice - expert rather than craft knowledge and the professional practice of an ethic. Elliott elaborates:

The practice of an ethic is the translation of practical principles into concrete forms of human action. ... The idea of professional judgement assumes that the human situations in which professional tasks have to be accomplished will differ so that no situation will be exactly like another. The translation of general moral principles (not rules) into concrete professional practices is therefore a matter of judging what constitutes an appropriate form of action in the particular situation at hand. And, of course, the quality of a professional judgement will depend upon the quality of the reflection about the situation which has preceded it. The competent practice of a professional ethic, therefore, rests essentially on an ability to translate reflectively ethical principles into concrete practices which are appropriate to a given situation ... (pp. 249-50)

Elliott's extension of the notion of the moral dimension of teaching to the affirmation that teaching is a profession, because it involves the practice of an ethic and the wise application of expert knowledge to appropriate situations, is logical. What, then, is the essential difference between his conception and Tom's? The answer appears to lie in their differing educational aims. For Tom the purpose of schooling is for students to learn certain curricular content which is deemed to be educationally worthwhile. Elliott, as revealed earlier in his refutation of the model of teaching as applied science and in his concern that teachers cannot only attend to matters of technology, is concerned with the process of learning which he says cannot be independent of the acquisition of content. Teaching students how to learn, developing inquiring minds, enabling students to learn through discovery and with genuine understanding, enabling students to take responsibility for their own learning, this is the kind of 'enabling' teaching which is as important as what students learn.

Thus Elliott is adding another dimension to the work of the teacher. The teacher not only needs to select worthwhile content and appropriate teaching strategies from his or her repertoire and to be able to make adjustments to move with the situation as it develops in the class, but also has to make selective judgements about the kind of teaching which will ultimately enable students to take responsibility for their own learning.

The professional ethic, therefore, appears to infuse all aspects of teaching. Acts of teaching are 'conditioned by the values which define the aim of professional practice and the principles of action which are consistent with such values. Professional knowledge is ethical knowledge, and the process of its development is best described as a kind of moral science. ... [As such] it is no more than the reflective practice of a profession' (p. 256).

In translating aims and principles into concrete practices, practitioners 'draw on a stock of knowledge distilled from past experience'. The initial development of any practice is 'intrinsically problematic' and is therefore in need of retrospective evaluation, which in turn leads to further refinement and generates more knowledge. From this process the practitioner acquires 'new ways of looking at particular situations and possibilities with respect to what might count as competent action in them. The reflective practice of a profession constitutes the dialectical process of generating practice from theory and theory from practice' (Elliott, p. 256).

Elliott introduces a further notion not included in Tom's analysis of the nature of teaching. Teaching, when considered as a form of moral science, or the reflective practice of a professional ethic, involves 'no necessary division of labour between practitioners and inquirers. As the means by which professional knowledge is developed, self-evaluation is an integral part of the research process ... , as indeed are the practices which are self evaluated' (p. 256). The teacher is inquirer; the teacher is reflective practitioner.

'Competent professional practice presupposes competent self-evaluation'; the recognition of teaching as reflective practice is essential to enhance the professional status of teachers. Elliott adds a note of caution: 'The development of the professional practice of individuals is limited if they simply reflect ... in isolation from their peers.' Teachers need to share their knowledge and insights; they need to use their collective professional wisdom to guide their judgements and to contribute to it 'what they learn from retrospective appraisals of such judgements. This process would be facilitated by a procedure for sharing and discussing individuals' accounts of their practices' (p. 257).

Both Stenhouse and Elliott have derived from their conceptions of the nature of teaching a further very important conception, of the nature of the work of the teacher: the teacher as reflective practitioner. Teachers' practice is informed by their professional knowledge; their practice informs their theories of teaching. Though he does not assert the same concept, Eisner seems to be thinking along similar lines when he says that there is a sense in which 'all teachers operate with theory,' if by theory we 'mean a general set of ideas through which we make sense of the world' (Eisner, pp. 155-6). On theory Eisner makes the key point, 'that both beliefs about what is desirable from an educational point of view ... and beliefs about the ways in which such learning can be fostered [play] an important role in giving direction to ... [teachers'] practical work (p. 144-5).

A theoretical framework, says Eisner, has two important functions: to 'help us bracket the world so that we can bring it into focus'; and to suggest 'rough approximations of what we might expect of certain pedagogical arrangements', by providing 'generalisations that can be considered in one's reflective [or pre-active] moments as a teacher'. Hence, 'theory sophisticates personal reflection and group deliberation' (pp. 155-6).

Tacit beliefs about the nature of human intelligence, about the factors that motivate children, and about the conditions that foster learning influence the teacher's actions in the classrooms. These ideas not only influence their actions, they also influence what they attend to in the classroom: that is, the concepts that are salient in theories concerning pedagogical matters also tend to guide perception. ... The major need is to be able to view situations from the varied perspectives that different theories provide and thus to be in a position to avoid the limited vision of a single view. (Eisner, p. 156)

In considering each of the conceptions of teaching Tom has outlined, we have seen how each conception provides a means of illuminating teaching, while at the same time casting some of its dimensions into shadow. Clearly, we have most to gain, from viewing 'the varied perspectives', as Eisner reminds us, as well as from a consideration of how a perspective, when cast in its best light, can help us to understand better the nature of the role and work of the teacher.

In the present 'crisis of confidence in professional knowledge in general and in teacher education in particular' Smyth (1987a, p.1), claims that there is a clear need to understand the nature of the teacher's knowledge and practice, and therefore, to rethink 'the kind of knowledge that informs and shapes the pedagogical practices of teachers'. Smyth considers the work of the teacher as 'a form of mental or "intellectual" labour, quite distinct from technical or manual forms of work.' The effects of reconceptualising the work of the teacher as a form of intellectual labour will be to permit and encourage teachers to question critically their understandings of society, schooling and pedagogy as well as to enable teachers to assume responsibility for making and testing theories about teaching (Smyth, 1987b, p. 155).

Woods (1987) reflects this idea when he articulates two requirements necessary for producing knowledge that is more central to teachers' concerns, than has been the knowledge which has been traditionally produced by educational researchers. 'First, teachers' knowledge should be *theirs*', and secondly, 'a new conception of knowledge is required, one that is not simply an extant body of facts and theories, but a living, experiential, processual, flexible, creative, compilation of insights, memories, information, associations, articulations that go into resourcing on-the-spot teacher decision-making and action' (pp. 121-2).

'The view of the teacher as professional permits us to get beyond the technologies of teaching to gain a fuller understanding of what we seek to do in schools, and why' (Blackman, p. 2). Much of the knowledge which informs teachers' work in classrooms is tacit, not articulated. We need to find ways of assisting teachers to make this knowledge public, to share and refine it; we need to find ways of assisting 'the dialectical process of generating practice from theory and theory from practice' (Elliott, p. 256). Once again, as Blackman said, 'as we alter our views of the teacher's role, from that of technician to that of professional, the focus of the agenda for professional development is altered, the locus of concern is broadened and sources of the agenda changed' (p. 2).

Chapter 4

The Teacher as Reflective Practitioner: Three Contributory Views

To take a stranger's vantage point on everyday reality is to look inquiringly and wonderingly on the world in which one lives. ... and it is in wonder and questioning that learning begins.

M. Greene (1973)

Reflection is the courage to make the truth of our own pre-suppositions and the realm of our own goals into things that most deserve to be called into question.

M. Heidegger (1977)

The phrase, 'the reflective practitioner' derives, of course, from the seminal work of that title by Schön (1983). In the previous chapter, in considering the conception of teaching as applied science, we glimpsed the way in which Stenhouse (1975) extended that analogy to derive the notion of the teacher as researcher. In this chapter I wish to pursue the ideas of both Schön and Stenhouse, with a view to exploring their application to teaching as a reflective practice. In addition, I wish to look more closely at the work of Eisner (1979) and his adoption and development of artistic approaches to educational evaluation, again with the intention of pursuing their potential application to teachers' systematic and self-critical inquiry into their teaching. Later, I will attempt an analysis of the work of Stenhouse, Schön and Eisner, in the hope of revealing a coherent theory of the reflective practice of teaching which can be usefully applied in the professional development of teachers.

In an ideal educational world, Stenhouse saw that each teacher would become a researcher into his own teaching practice. Each classroom would become a laboratory, in which the teacher would operate as scientist, with the curriculum specification as the subject of, or the hypothesis for testing in his or her personal research and development project. The object of the research would be to feed the teacher's understanding and thus enhance practice. In Stenhouse's vision, I believe, we have the genesis of the

conception of the reflective practitioner, and for this reason his vision warrants closer attention.

Stenhouse's concern with the role of the teacher was part of a wider consideration of curriculum research and development. He saw curriculum as 'an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to close scrutiny and capable of effective translation into practice' (p.4). Curriculum development means putting into practice the policy or proposal, and therefore involves 'both content and method [or teaching strategy], and in its widest application takes account of the problem of implementation' (p. 5). He recognised the element of teacher judgement as crucial in implementing the proposal. Thus a key feature of Stenhouse's thesis is the interrelationship between curriculum development and teacher development: 'curriculum development must rest on teacher development'; it should promote teacher development and hence 'the professionalism of the teacher. Curriculum development translates ideas into classroom practicalities and thereby helps the teacher to strengthen his practice by systematically and thoughtfully testing ideas.' (p. 24-25)

Stenhouse's central concern was with the 'betterment of teaching', which must be the focus of curriculum research, development and evaluation. Unlike many approaches to curriculum implementation in the 1970s, he considered a curriculum innovation unlikely 'substantially to improve intellectual power if it is not centrally concerned with the betterment of teaching' (p. 39).

The improvement of teaching is a process of development ... to be achieved ... by the thoughtful refinement of professional skill; and the refinement of professional skill is generally achieved by the gradual elimination of failings through the systematic study of one's own teaching.

Both curriculum development and research into teaching should provide a base for this professionalism. ... [There is] much to be done if teachers are to get a research base on which to mount a program of professional self development. (p. 39)

Dissatisfaction with the 'objectives model' approach to curriculum evaluation led Stenhouse to develop an argument 'against the separation [of the roles] of curriculum developer and evaluator and in favour of integrated curriculum research' (p. 121). Among the shortcomings he saw in the objectives model are its failure to include pre-tests for diagnostic purposes, failure to monitor classrooms, to verify the actual operation of the curriculum, to assess the difficulty of implementing it, and to identify particular successes and failures, rather than merely to judge the attempted innovation as a success or failure in its entirety. He was concerned that a curriculum should be evaluated in terms of its worth in the educational development of the students, as well as to determine whether it has achieved its goals. Stenhouse also considered it essential that the evaluator understand the educational process and context into which the curriculum is being introduced. (pp. 99-109)

Perhaps the most crucial criticism of the objectives evaluation model is that it assesses without explaining, thus preventing the curriculum developer from learning from the innovation attempt. This led Stenhouse to assert that 'curriculum development should be handled as educational research' (p. 120), with the developer also taking on the role of investigator, starting with a problem rather than a solution.

Curriculum research must be concerned with the painstaking examination of possibilities and problems. Evaluation should ... lead development and be integrated with it. Then the conceptual distinction between development and evaluation is destroyed and the two merge as research. Curriculum research must itself be illuminative rather than recommendatory as in the earlier tradition of curriculum development. (p. 122)

When the curriculum developer is also investigator, the curriculum can be judged on its capacity to advance our knowledge rather than by whether it is right. 'It is conceived as a probe through which to explore and test hypotheses and not as a recommendation to be adopted' (p. 125). Rather than follow, the evaluation should lead curriculum development, so that the curriculum would be designed to meet its function as a research probe. It was Stenhouse's hope that 'schools taking part in a curriculum project would do more self-consciously and systematically what they would have done anyway' (p. 126).

Curriculum was not the most important variable to be taken into account. Stenhouse was looking towards 'a particular kind of professionalism ... research-based teaching' (p. 141), in which the teacher is also researcher. In the previous chapter we briefly traced the teacher-research process, founded on the premise that 'all well-founded curriculum research and development ... is based on the study of classrooms ... [and therefore] rests on the work of teachers' (p. 143). Stenhouse saw a curriculum as no more than a particular form of specification about the practice of teaching, a hypothesis inviting critical testing rather than acceptance. The uniqueness of each classroom implies that the curriculum must be tested, verified and adapted in each setting in which it is to be enacted. It is not enough that the work of teachers should be studied; teachers should study it themselves. Thus the teacher as implementer necessarily becomes evaluator and researcher, studying the problems and effects of implementing the teaching specification, 'progressively increasing his understanding of his own work and hence bettering his teaching' (p. 143).

Stenhouse recognised the implications of his view that 'curriculum research and development ought to belong to the teacher' (p. 142) for enhancing the work of schools and the teacher's professional self-image. A primary interest was the extended capacity of the teacher as a result of his enhanced role in becoming 'researcher in his own teaching situation'. Stenhouse drew on Hoyle's concepts of restricted and extended professionalism. According to Hoyle, the teacher as restricted professional typically demonstrates a high level of classroom competence, child- or subject-centredness and a high degree of skill in managing children; derives personal satisfaction from teacher-pupil relationships; evaluates his performance in terms of his own perceptions of changes in pupil behaviour and achievement; and attends short courses of a practical nature. In Hoyle's view, the extended professional has all these characteristics, and in addition, views his work within the wider context of the school, community and society; participates in a wide range of professional activities; is concerned to link theory and practice; and has a commitment to some form of curriculum theory and mode of evaluation. (pp. 143-4)

For Stenhouse, the essential characteristics of the extended professional are those required in curriculum research and development. Hoyle's

concept did not enable the achievement of autonomy. Thus in Stenhouse's redefinition, the extended professional is committed to the systematic questioning of his own teaching as a basis for development; has the commitment and skills to study his teaching; is concerned to question and test theory in practice by using those skills; and is ready to allow other teachers to observe his work and to discuss it with them openly and honestly. Above all, the extended professional possesses the capacity for autonomous professional development through the systematic study of his own work and that of other teachers, and through the testing of ideas by means of classroom research procedures. (p. 144)

In considering the nature of the research methodology the teacher would employ, Stenhouse thought social anthropological methodology to have greater potential than traditional quantitative methods, because it uses 'direct observation of classroom events as a starting point in the development of theory, ... uses only detailed field notes as the means of recording ... [and] attempts not merely generalisation but also the characterisation of the uniqueness of particular situations' (p. 150). Stenhouse noted that the teacher would probably only be able to assume the role of researcher in an 'open' classroom, one in which open negotiation is the order of the day. (This has interesting implications for the nature of professional development programs.)

Stenhouse's thesis, then, is that 'effective curriculum development of the highest quality depends upon the capacity of teachers to take a research stance to their own teaching, ... [to have] a disposition to examine ... [their] own practice critically and systematically' (p. 156). He suggested that in their development teachers would gain from the presence of an observer in the classroom from time to time.

If we could get general acceptance of the proposition that all teachers are learners and create a public research methodology and accepted professional ethic covering this situation, we would have the basis for observing the teaching of colleagues which greatly reduced the element of threat in the situation. (p. 156)

The focus of the teacher as researcher is his own classroom, so that his hypotheses and generalisations will usually be kept within his own context and experience. For him 'theory is simply a systematic structuring

of his understanding of his work', 'but should be rich enough to throw up new and profitable questions' (p. 157). It is the teacher's subjective perception which is crucial for practice, since he is in the position to control the classroom. What is at issue is 'the development of a sensitive and self-critical subjective perspective', and to achieve that, 'illusion, assumption and habit must be continually tested' through conscious study. Illusion will be destroyed once it is disclosed, and assumptions and habits will change with new learning. The real problem is that of awareness:

Conscious study can lower the threshold of awareness and help the teacher to be more perceptive. But he can never escape from the process within which he must respond as he does his work. ... Much teaching must be habitual in the way that playing tennis is: it is a question of cultivating habits [he] can defend and justify. ... The good player often improves his performance by becoming self-conscious. At practice he is converting deliberate awareness into reliable habit. (p. 158)

How can the teacher develop this level of self-consciousness? Close examination by others of one's professional performance is very threatening; 'and the social climate in which teachers work generally offers little support to those who might be disposed to face that threat' (p. 159). Mutually supportive co-operative research projects, in which teachers and researchers work together, offer a strong possibility. Moreover, although the teacher's research is generally confined to the limits of the classroom, Stenhouse is keen to point out that 'each classroom should not be an island' (p. 157). Teachers working to develop the capacity for systematic self-critical review need to communicate with one another by sharing and discussing their work, and by observing one another, although Stenhouse does not explicitly say so. They will need a 'common vocabulary of concepts and syntax of theory', and where that 'language proves inadequate' teachers will 'need to propose new concepts and a new theory' (p. 157). Professional curriculum researchers will be able to help in the task of developing a general theoretical language.

If teachers report their work in such a tradition, case studies will accumulate. ... Professional research workers will have to master this material and scrutinise it for general trends. It is out of this synthetic task that general propositional theory can be developed. (p. 157)

For Stenhouse a major strength of his conception of the teacher as researcher is that 'inquiry-based teaching inculcates a speculative approach to knowledge and ways of knowing' (p. 183). In this sense research should be viewed 'as the means towards a "disciplined intuition", fusing creativeness and self criticism' (p. 223). 'In the end,' he said, 'it is difficult to see how teaching can be improved or how curriculum proposals can be evaluated without self-monitoring on the part of teachers. A research tradition which is accessible to teachers and which feeds teaching must be created if education is to be significantly improved' (p. 159). For experienced teachers accessibility to the tradition would be through in-service education (p. 208).

In 1979 Eisner published The Educational Imagination, in which, as we have already seen, he posited the conception of teaching as being akin to the fine arts. Eisner's analogy offers more than a different view of teaching. In setting out to show how artistic or aesthetic forms of understanding and reflection can assist in the design and evaluation of educational programs, he offers two interesting concepts, those of educational connoisseurship and educational criticism. Eisner contends that our conceptions of research, knowledge and evidence have been derived from the epistemology of science and our knowledge about educational practice has been derived from the application of the methods of the social sciences to the study of education. Those methods are in general quantitative. Yet the study of educational activity, whether it is teaching, evaluating, or curriculum planning, also requires qualitative methods 'to illuminate, to provide those concerned with education with the kind of understanding that will enhance their own teaching or professional deliberations' (p. 287). Eisner's 'claim is that the paradigmatic use of qualitative inquiry is found in the arts' (p. 190).

Although Eisner does not make explicit connections between the artistic forms of inquiry involved in his conceptions of educational connoisseurship and criticism and the self-critical reflection of classroom teachers, I believe there is considerable gain to be made in seeking to make those connections explicit. But first we must follow the process of the derivation of these conceptions.

Like Stenhouse, Eisner too found limitations in the 'objectives-model' domination of educational evaluation and research, based on the belief that 'single-mindedness and clarity of one's ends-in-view are required for rationally guided activity' (p. 161). To be rational, in this sense, implies being intentional. But Eisner believes that this conception of rationality, derived from technologies emphasising standardisation, routine and efficiency, restricts the activity of teaching. Furthermore, it is contrary to his contention that a key factor of excellent teaching is artistry, which not only involves 'fluid intelligence', flexibility, ingenuity, personal creativity, and the ability to 'exploit opportunities as they occur', but also implies 'that goals and intentions be fluid'. 'If teaching is regarded - at least in part - as a form of inquiry, a process of exploring problems one cannot always define or predict - problems of a pedagogical and substantive variety - the limitations of such a conception of rationality begin to become apparent' (p. 161).

Eisner contests the requirement of the evaluation of teaching that the aims in operation must also be capable of being measured, a belief which he says has a 'coercive impact' (p. 163). When 'our view of learning is shaped by what we can measure, ... what we do measure may seriously bias our perception and understanding' (p. 267). In any case, an intention is not always linguistically formulated nor capable of it:

Much of what we aim for is held in the mind's eye as an image rather than as a proposition. The image is a visual form of knowing that is in many ways clearer than its discursive representation. ... The images of excellence in the arts and the sciences, in the social studies and in the conduct of practice are often extremely difficult to articulate - and at times are ineffable. To expect all of what we prize to be capable of being translated into discourse is to make a second conceptual blunder: namely failure to appreciate the modes of conceptual representation humans are capable of using. (p. 163)

We can hold intentions, without always being able to state them; and intentions can emerge from action and responses to it. Rational activity can include play, exploration and surprise, but when rationality is dominated by prescriptions that thwart flexible human intelligence, then, says Eisner, the educational imagination is shackled (p. 163). Research in teaching has tended to ignore the distinctive differences among the

various modes of teaching; moreover, being able to demonstrate achievement of measurable criteria does not necessarily indicate value in teaching. 'Teaching matters, ... when what is taught is worth the student's time' (p. 165). Eisner concludes that 'scientific evidence about teaching or about most other aspects of educational practice is quite limited' (p. 179).

Yet there is much that 'is useful from seasoned experience and critical reflection on that experience', and there is much that can be evaluated by 'a sensitive student of classrooms' (p. 179-80). The problem is to find a means of describing and evaluating the quality of teaching and learning, and to do so in such a manner that the complexity, the ambiguity and the richness of what happens in schools and classrooms can be revealed. Whereas quantitative methods may have their place in some aspects of evaluation, Eisner proposes that this problem should be conceived as an artistic problem. What is required is the use of qualitative modes of inquiry in 'the construction of an evaluation landscape' (p. 185), taking account of a wide variety of information from a range of sources and revealed through various reporting procedures. The work of artists, says Eisner, is 'the paradigmatic use of qualitative inquiry' (p. 190); however, those who inquire into the work of artists, the art critics, employ another form of qualitative inquiry. It is from art criticism that Eisner has developed his idea of educational criticism.

Eisner describes the art critic as the 'midwife to perception' (p. 191). The art critic has the task, not of judging, but rather of 'rendering the essentially ineffable qualities constituting works of art into a language that will help others perceive the work more deeply'. Two points are made. Firstly, criticism is an empirical undertaking, in the sense that the qualities the critic describes must be able to be found in the subject matter. Secondly, the object of criticism is the illumination of the qualities of a work of art and their relationships.

The reason we have never recognised criticism as a potentially useful vehicle for describing, interpreting and evaluating educational practice, says Eisner, is that we have been professionally socialised to believe that the most dependable procedure one can use to obtain knowledge is through science, and that respectable inquiry is scientific in character. He believes 'that the creation of educational criticism, a form of criticism not

unlike that found in the arts but directed to educational matters, could provide a kind of utility that scientific studies and quantitatively treated phenomena neglect' (p. 193).

Effective criticism is dependent on perception, the ability to perceive what is subtle, complex and important. 'Criticism can only be as rich as the critic's perceptions' (p. 211). Knowledgeable perception in the arts is connoisseurship. While 'criticism is the art of disclosure', 'connoisseurship is the art of appreciation', essential to criticism (p. 193). 'Connoisseurship provides the fundamental core of realization that gives criticism its material' (p. 194). To be able to recognise what is significant in educational activity, to perceive the subtle particulars in educational life and the way those particulars form part of a structure within the classroom, an educational connoisseur must have a great deal of experience in classroom practice. Thus almost anyone who has been a teacher has the basis for becoming a connoisseur, but connoisseurship must be refined and developed through having opportunities 'to attend to happenings of educational life in a focused, sensitive, and conscious way', and 'to compare such happenings, to discuss what one sees so that perceptions can be refined, to identify events not previously perceived, and to integrate and appraise what has been seen' (p. 195).

To talk about essences and significance in the observation of educational events requires, of course, not only a sensitivity to the emerging qualities of classroom life, but also a set of theories or models that enable one to distinguish the significant from the trivial and to place what one sees in an intelligible context. This process is not serial: we do not see and then assess significance; the very ideas that define educational virtue for us operate within the perceptual processes to locate among thousands of possibilities what we choose to see. The essence of perception is that it is selective; there is no value-free mode of seeing. (p. 195)

The qualities of an event or object that connoisseurship perceives, are disclosed by means of criticism. Eisner notes that 'in using language to make public qualities and meanings that are not themselves discursive, something of a paradox exists. How can words express what words can never express? The successful resolution of this paradox lies at the very heart of the critical act' (p. 197). The purpose of criticism is to give an account of a situation, event or object, not to translate it, but rather to 'render' it. Criticism is neither a work of art nor a response, but something

much rarer, 'a rendering of the interaction between the two'; criticism provides virtual rather than actual meanings and creates a rendering of its subject that indicates aspects of significance. What counts as significant will depend on the critic's purposes as well as on the theories, models and values that shape his or her perception.

To show how language, the tool of criticism, is illuminative, Eisner draws to our attention the distinctions between discursive and non-discursive forms of knowledge, and between representational and presentational symbols. He refers to Ernst Cassirer who pointed out that science 'focuses on what is general and common across particulars, whereas art focuses on the unique characteristics of the particulars themselves' (p. 198). In An Essay on Man, Cassirer wrote:

Art ... teaches us to visualise, not merely to conceptualise or utilise, things. Art gives a richer, more vivid and colourful image of reality, and a more profound insight into its formal structure. It is characteristic of the nature of man that he is not limited to one specific and single approach to reality but can choose his point of view and so pass from one aspect of things to another. (Quoted in Eisner, p. 199)

Drawing on the work of Susanne Langer, Eisner adds that while propositional statements are valuable tools for expressing ideas about factual states of affairs, revealing particular qualities of life requires 'a language more intimate, ... a language that presents to our consciousness what the feelings of those qualities is' (p. 199).

Literature is ... a prime example of the non-discursive use of language. ... What gives literature its power is the way language has been formed by the writer. It is the 'shape' of language as well as the perceptive recognition of the metaphorical, connotative and symbolic character of particular words and phrases that makes written language literature. (p. 199)

The writer or critic transforms knowledge held in one mode into that in which the writer or critic works. The material becomes a medium 'through which the life of feeling is shared'. Each uses similar language to the other: 'for making public the ineffable, nothing is more precise than the artistic use of language. Metaphoric precision is the central vehicle for revealing the qualitative aspects of life' (p. 200). The language used in the

arts and in criticism is essentially non-discursive, intimating rather than asserting, using forms to present rather than represent conceptions or feelings. 'Criticism works by implication' (p. 203). Understanding that through the arts we are enabled to participate vicariously in the lives of others and, therefore, to know them in ways that only the arts can reveal, is crucial to understanding, says Eisner, 'why educational criticism is such an important complement to the existing modes of inquiry in education' (p. 201).

Eisner presents three aspects of educational criticism: the descriptive, the interpretative and the evaluative. Since all description is to some extent evaluative, all evaluation to some degree interpretative, distinctions between these aspects are not sharp. However, the distinctions serve to sharpen the foci of criticism. The descriptive aspect of criticism makes the most artistic demands on the critic, because the language used in rendering, characterising or portraying the qualities of educational life which are the object of criticism must be more evocative than in using the interpretative and evaluative aspects. The critic, like the artist, does not write about every dimension of a situation, rather the critic chooses what will be attended to. And it is the pervasive or underlying qualities which are the important subject of criticism. Hence, descriptive criticism may enable the reader to experience the situation more vividly than would perhaps be possible in direct contact.

By using ideas, concepts, models and theories from the social sciences and history, the interpretative aspect asks what the object of criticism means to those involved in the situation, attempts to provide an understanding of what has been rendered and to predict consequences. A theory provides the framework for offering an explanation which makes sense of the interplay of phenomena within a situation. The critic must know and be able to choose an appropriate theory. Eisner suggests that 'the role of interpretation in criticism is related to the concept of "thick description" as used by Clifford Geertz in anthropology.' Geertz saw the role of the ethnographer as 'seeking the deep structure of social events, the rules or modes that give them order' (p. 208). 'Thick description aims at describing the meaning or significance of behaviour as it occurs in a cultural network saturated with meaning' (Eisner, 1985, p. 112). To be useful, interpretative criticism must penetrate beneath surface appearances, must be able to

recognise the difference between, say, a twitch of the eye and a wink, or between a sigh of relief and a sigh of frustration, in a student's behaviour. A wink, a kind of coded message, signifies something entirely different from a compulsive twitch; a sigh of frustration may represent a barrier to learning, whereas a sigh of relief may be the indication of a vital breakthrough. Understanding such crucial differences in the meaning of behaviour may be critical to achieving an adequate interpretation of educational events.

The third aspect of educational criticism attempts to evaluate the educational significance of the situations studied. Judgement is inevitable; in the processes of description and interpretation, selection has already occurred. 'Evaluation ... pervades the perceptual processes themselves' (Eisner, 1979, p. 209). In any case the purpose of criticism is the enhancement of the educational process; this cannot be achieved without 'a conception of what counts' in an educational perspective. The questions the critic poses to guide the judgements of the evaluation require the application of educational criteria. Moreover the educational critic must be able to justify the values embedded in his judgements, and those that have been rejected. Differences in values positions among critics with respect to the meaning and significance of educational events could engender valuable argument. Because educational criticism will enable the complexity of issues or policies to be appreciated, Eisner believes it will provide a more adequate basis for making educational judgements.

The goal [of criticism] is to have our perception and understanding expanded ... Classrooms and schools are at least as multilayered as works of art ... Critics with different educational orientations and interests will find in situations as phenomenologically dense as classrooms different things to describe, interpret, and evaluate. The cultivation of such productive diversity is a virtue ... (p. 217)

Although Eisner saw the purpose of educational criticism to be the enhancement of teaching through providing 'a more complex and particularistic view of an educational situation' (p. 287), since he has not attended to the process of assisting the teacher to become a critic whilst maintaining teaching responsibilities, he seemed to envisage the educational critic as someone who had some experience of teaching but who was probably no longer actively teaching. The task is to apply Eisner's

conceptions of educational connoisseurship and criticism to the conception of the reflective practitioner.

In The Reflective Practitioner, Schön (1983) began with the assumption that competent practitioners, of all professions, usually exhibit a kind of knowing-in-practice, most of which is tacit and which can be tested. 'Indeed, practitioners themselves often reveal a capacity for reflection on their intuitive knowing in the midst of action and sometimes use this capacity to cope with the unique, uncertain and conflicted situations of practice' (pp. viii-ix). Schön analyses reflection-in-action, arguing that it 'is susceptible to a kind of rigour that is both like and unlike the rigour of scholarly research and controlled experiment'; from this he suggests the implications of reflective practice.

The background to Schön's study is the 'crisis of confidence in professional knowledge' (p. 5) which has developed across the range of professions in recent decades. He examines the way competent professionals operate and provides a theory of operation which, he claims, can restore confidence in the professions and in professionals, or in terms of my own particular interest, provide a means for the enhancement of teaching and of teachers as professionals.

Contemporaneous with an explosion in the knowledge industry, paralleled by an escalating demand for professional services, there is 'a deep questioning of the professionals' claim to extraordinary knowledge in matters of human importance' (p. 5), a crisis of confidence. Schön contends that within the dominant tradition which has developed over the last four hundred years, 'the professionals' claim to extraordinary knowledge' is embedded in the techniques and theories derived from scientific research. Furthermore, wherever professionals operate within the context of an established bureaucracy, they are institutionally bound by an organisational knowledge structure and related network of 'systems of control, authority, information, maintenance and reward, all of which are tied to prevailing images of technical expertise' (p. 336). Thus, the attack on professional identity, which results from the public questioning of professional practice, may be exacerbated by the organisational structures within which the practitioner must operate.

Schön sees public scepticism about the actual contribution of the professions to the well-being of society as hingeing on the question of professional knowledge. 'Is professional knowledge adequate to fulfil the espoused purposes of the professions?' Does it meet 'the societal demands which the professions themselves have helped to create?' (p. 13) Professionals themselves interpret the crisis as a mismatch between professional knowledge and the changing nature of their practice, in that the professions are now confronted with an 'unprecedented requirement for adaptability'. Within this context, it is crucial that the situations of professional practice are no longer viewed as problems to be solved, but as unique events characterised by complexity, uncertainty, instability, disorder, indeterminacy and value conflict. (pp. 13-15)

These changing requirements of the professions have resulted in conflicting views of professional practice. Reflecting both Eisner and Stenhouse, Schön notes that some professionals practise with 'artful competence', display artistry in their day-to-day practice, and recognise that 'professional practice has at least as much to do with finding the problem as with solving the problem found' (p. 18). But others find these modes of practice disturbing because they are unable to make sense of them within the prevailing model of professional knowledge. Complexity, instability and uncertainty are not removed or resolved by applying specialised knowledge as if the tasks were well defined. Yet artful practice of the unique case appears anomalous when professional competence is modelled in terms of the application of established techniques to recurrent events. Problem setting has no place in a body of professional knowledge concerned exclusively with problem solving. 'Choosing among competing paradigms is not amenable to professional expertise' (p. 19), as it has been traditionally viewed.

The problem for professionals, as Schön has perceived it, is that 'we are bound to an epistemology of practice which leaves us at a loss to explain, or even describe', the competences to which practitioners are coming to give over-riding importance, that is to say, those practitioners who are 'making sense of uncertainty, performing artistically, setting problems, choosing among competing paradigms' (p. 20). This dominant epistemology of practice, pervasive of all the professions, and which has

provided a view of professional practice as instrumental problem solving, made rigorous by the application of scientific theory and teaching, is what Schön terms Technical Rationality.

Technical Rationality is most purely manifest in 'the major professions', medicine, law, business and engineering, which are 'grounded in systematic fundamental knowledge, of which scientific knowledge is the prototype' (p. 23). This epistemology was also adopted by the minor professions, including education, where there was a conscious endeavour to achieve professional respectability and rigour by emulating the major professions. Thus the common endeavour was to develop a systematic and specialised knowledge base, demonstrably scientific, standardised and firmly bounded. Within the view projected by Technical Rationality, professionals are problem solvers, applying very general principles and standardised knowledge to concrete problems. The role of researchers is to 'provide the basic and applied science from which practitioners would derive techniques for diagnosing and solving the problems of practice' (p. 26). Implicit in the relationship between researchers and practitioners is a hierarchy in which researchers are considered superior. This hierarchy is all-pervasive, so that the development of a scientific knowledge base assumes prior importance to the 'skills of application to real-world problems of practice' (p. 27). If applied science consists in 'cumulative, empirical knowledge', based on quantitative methods, to meet fixed, unambiguous ends, 'how can a profession ground itself in science when its ends are confused or unstable' (p. 23)?

Schön places Technical Rationality as the legacy of Positivism, 'the powerful philosophical doctrine that grew up in the nineteenth century, as an account of the rise of science and technology, and as a social movement aimed at applying the achievements of science and technology to the wellbeing of mankind' (p. 31). For the Positivists science became 'a hypothetico-deductive system' in which the laws of nature were 'constructs created to explain observed phenomena. ... The heart of scientific inquiry consisted in the use of crucial experiments to choose among competing theories of explanation' (p. 33). In a hierarchy of knowledge, valuing empirically derived knowledge above all, practical knowledge was seen as knowing the applications of scientific knowledge to the achievement of ends. The dominance of Technical Rationality was

given impetus in the twentieth century in the period following World War II and particularly after Sputnik, when there was vastly increased spending on research.

Yet since 1963, says Schön, professionals have been 'increasingly aware of the importance to actual practice of phenomena - complexity, uncertainty, instability, uniqueness, value-conflict - which do not fit the model of Technical Rationality' (p. 39), since this doctrine asserts a view of professional practice as a process of problem solving, and ignores problem setting.

Technical Rationality depends on agreement about ends. When the ends are fixed and clear, a decision to act is an instrumental problem, but when the ends are confused and conflicting, there is as yet no problem to solve. The professional must engage in the non-technical process of problem setting:

When we set the problem, we select what we will treat as the 'things' of the situation, we set the boundaries of our attention to it, and we impose upon it a coherence which allows us to say what is wrong and in what directions the situation needs to be changed. Problem setting is a process in which, interactively we *name* the things to which we will attend and *frame* the context in which we will attend to them. (p. 40)

Schön suggests that it is the work of naming and framing that creates the conditions necessary to the exercise of technical expertise (p. 42), and that 'the gap between professional knowledge and the demands of real world practice' (p. 45) is attributable to the dominance of Technical Rationality. Thus professionals bound by the epistemology of Technical Rationality are caught in the dilemma of 'rigour or relevance'. By definition, their rigorous professional knowledge excludes the phenomena they have learnt to see as central to their practice. Artistic ways of coping with these phenomena do not qualify as rigorous professional knowledge. Practitioners must choose between a 'high hard ground' of rigour, where the real and complex problems of clients are often unresponsive to the solutions of science, and the 'swampy lowland' of relevance, where practitioners' methods of inquiry, based on experience, trial and error, and intuition, may meet clients' needs but fail to meet rigorous 'scientific' standards.

In the previous chapter, several models of teaching were identified, which have influenced the way teaching is both perceived and practised. Of these, the conception of teaching as applied science has undoubtedly been the most pervasive model, and this is particularly clear when we take into account the dominant methodologies of research and professional development. Not only can the methods of professional practice which conform to Technical Rationality be shown to be inappropriate in a profession like medicine where there is one paradigm of practice, but as Schön points out, in a profession where there are conflicting paradigms of practice, as in the pluralism of education, there is clearly no sustainable rationale for the sole use of the methods of Technical Rationality.

Schön claims that 'the dilemma which afflicts the professions hinges ... on the Positivist view of science', yet 'the Positivist epistemology of practice ... has fallen into disrepute in its original home, the philosophy of science' (p. 48), Positivist understanding of science, knowledge and meaning being considered inadequate. Science has traditionally been seen 'after the fact' as a body of established propositions derived from research. When their limited utility in practice is recognised, professionals experience the dilemma of rigour on relevance. But science may also be considered 'before the fact', as a 'process in which scientists grapple with uncertainties and display arts of inquiry akin to the uncertainties and arts of practice' (p. 49). It is from this platform of rejection of Technical Rationality that Schön goes on to develop 'an epistemology of practice implicit in the artistic, intuitive processes which some practitioners do bring to situations of uncertainty, instability, uniqueness and value conflict' (p. 49).

Schön begins by noting that in their day-to-day practice professionals depend on 'tacit knowing-in-action', making 'innumerable judgements of quality for which ... [they] cannot state adequate criteria, and ... [they] display skills for which ... [they] cannot state the rules and procedures. Even when ... [they make] conscious use of research-based theories and techniques, ... [they are] dependent on tacit recognitions, judgements and skilled performances' (p. 49). In addition, and usually at the same time, practitioners often reflect about what they are doing, in the sense that 'they turn thought back on action and on the knowing which is implicit in action'. 'There is some puzzling, or troubling, or interesting

phenomenon' of which the individual is trying to make sense; he reflects 'on the understandings which have been implicit in his action, understandings which he surfaces, criticises, restructures and embodies in further action It is this entire process of reflection-in-action,' Schön claims, 'which is central to the 'art' by which practitioners sometimes deal well with situations of uncertainty, instability, uniqueness and value conflict' (pp. 49-50).

Technical Rationality has conditioned us to think of intelligent practice as the application of knowledge to instrumental decisions, yet Schön says there is 'a kind of knowing inherent in intelligent action', know-how, spontaneous and skilful behaviour that 'does not stem from prior intellectual operation' (p. 51). This is 'tacit knowing' in the sense that Michael Polanyi (1958) uses it, when he talks about the unspecifiability of our personal knowledge; we always know much more than we can say precisely. In general, 'by acquiring a skill, whether muscular—or intellectual, we achieve an understanding which we cannot put into words ... ' (p. 90)

Thus professionals know much more than they can say, and among groups of professionals there exist tacit norms, common understandings, which cannot be put into words, but which may provide the basis for collegiality. According to Schön, this knowing-in-action is 'the characteristic mode of ordinary practical knowledge' (Schön, p. 54). It is also characteristic of daily life, as reflected in such idiomatic expressions as 'keeping your wits about you' and 'thinking on your feet'. These phrases suggest, too, the idea of reflecting-in-action, as do such expressions often used by sportsmen as 'finding your rhythm'. Deviations from these norms may be recognised and described much more easily than the norms themselves. When intuitive performance yields expected results—we tend not to give them any thought, but when the results are surprising, very pleasing or disappointing we tend to reflect on our action, focusing 'interactively on the outcomes of the action, the action itself and the intuitive knowing implicit in the action'. Thus, much spontaneous 'reflection-in-action hinges on the experience of surprise.' (p. 56)

The word 'practice', as it applies to the professional practitioner, has a number of connotations. The practitioner has engaged in preparation to

become a practitioner, performs in a range of professional situations, and as a specialist repeatedly encounters certain kinds of situations, in which he practises his practice. The practitioner experiences many variations of certain types of situations. This virtual repetition of experiences is a key feature as it enables the practitioner to develop a repertoire of expectations, images, understandings, techniques and actions. The practitioner learns what to look for and how to respond to what he finds.

However, as long as there is stability in the kinds of situations that present to him, as long as there are no surprises, his knowing-in-practice, his intuitive understanding, becomes increasingly tacit, spontaneous and automatic. The professional who perceives and practises within such stability is competent, but in the same sense as Stenhouse presents Hoyle's restricted professional. On the other hand, the practitioner who recognises uniqueness and uncertainty in some situations, to which standard theories and techniques cannot be satisfactorily applied, is encouraged to reflect on his knowing-in-practice.

Reflection-in-action occurs in a range of modes and 'is central to the art through which practitioners sometimes cope with the troublesome "divergent" situations of practice' (p. 62). The practitioner may reflect on the way he is perceiving and framing the problem at hand, or on the norms which underlie a judgement, or on the feeling he has for a certain situation. He may criticise his initial understanding of the situation, and design and test a new strategy, a new 'frame experiment'.

When a practitioner makes sense of a situation he perceives as unique, Schön suggests that he nevertheless perceives it 'as something already present in his repertoire' (p. 138). He sees in the unfamiliar, unique situation, some aspects which are familiar, although he may not be able to say what. The familiar aspects help him to find a 'precedent or metaphor or exemplar'. It is this capacity to see an unfamiliar situation as familiar in some way, that enables him to bring past experience to bear on the unique case, to have a feel for a problem that does not fit existing rules. Because the practitioner is able to see an unfamiliar situation as nevertheless part of his repertoire, he is able to make sense of the uniqueness, without having to reduce the unique situation to standard categories. 'The artistry of the practitioner hinges on the range and variety of the repertoire ...

[brought] to unfamiliar situations' (p. 140). And each new experience of reflection-in-action enriches the practitioner's repertoire.

When the practitioner sees in the unique situation some element of his repertoire, he perceives a new way of framing the situation with the possibility for action. By drawing on prior experience and attending to the peculiarities of the particular situation, he tries to discover the particular features of the problematic situation; the process of discovery leads him to design an intervention. The adequacy and usefulness of his new view must be tested in action. Each move that he makes changes the phenomena so that the hypothesis will fit, but he remains open to the possibility of phenomena that are incongruent with his initial problem setting. On this basis he frames the problem and the inquiry becomes a frame experiment. The inquirer is willing to step into the problematic situation, to impose a frame on it, and to follow the implications of the theory implicit in his frame, yet he remains open to the situation's 'back-talk.' And in the event that the inquirer's efforts to shape the situation to conform with his initial frame have surprising consequences, he must frame new questions and new objectives.

Thus reflection-in-action necessarily involves experiment; and the 'experimenting is at once exploratory, move testing and hypothesis testing' (p. 147). A practitioner who reflects-in-action 'becomes a researcher in the practice context' (p. 68), constructing a new theory for each unique case. His inquiry and action interact: experiment is both action and inquiry. The practitioner is not distant from his inquiry, his interest in the problem situation is compelling as he seeks to exert influence in such a way as to confirm, not refute, his hypothesis, but in his transaction with the situation he remains open to the possibility that his hypothesis will not fit. The practitioner comes to understand the situation by trying to change it, learning from the situation's 'back-talk', the responses to his exploratory attempts. The changes are the essence of the success of his experimental method. (pp. 149-51)

Schön likens the practitioner's reflection-in-action to an artistic performance. There is artistry evident in the 'selective management' of information, in the 'ability to spin out long lines of invention and inference, and the capacity to hold several ways of looking at things at

once without disrupting the flow of inquiry' (p, 131). There is artistry, too, in the 'reflective conversation with a unique and uncertain situation' in which the practitioner engages. Through his transaction with the situation, he shapes it and makes himself part of it, thereby constructing a virtual world, a representative world of practice, of which he is part and which, to some extent, he can shape. As he improvises and experiments 'the boundaries between virtual ... and real worlds may become blurred' (p. 162). Practice in the artistic venture of constructing and using virtual worlds develops and refines the capacity for reflection-in-action.

The inquirer must accept responsibility for the action he takes. He must be open to the fact that his interventions may cause new confusions and uncertainties. At the same time he needs to adopt an ironical standpoint: he must act in accordance with the view he has adopted in his inquiry, and he must be prepared to examine this situation in the wider context of his professional knowledge. Thus the practitioner needs to bring to a situation otherwise in flux, an overarching theory and an appreciative system, so that each new experience of reflection-in-action contributes to an increasing coherence of practice. The overarching theory and the appreciative system provide the practitioner with the relatively solid references from which, in reflection-in-action, he can allow his frames and theories for the particular situation to be pulled apart. His overarching theory provides the basis for his particular interpretations, determines the boundaries of his practice and provides a reference on which the practitioner can cumulatively build his repertoire. The appreciative system enables the practitioner to appreciate the situation with which he is dealing in the task of problem-setting, to appreciate the situation's 'back-talk' in the reflective conversation, and to tell when his inquiry is complete. (pp. 270-273) Since the inquirer's relationship to the complex and unique situation with which he is dealing is transactional, as his experience in dealing with various situations increases, so will he make adjustments to his theories and appreciative systems.

In describing the process of reflection-in-action the focus has been on uniqueness, on the way the reflective practitioner approaches the problematic situation as a unique case, rather than attempting to see it as a problem to be solved by the application of a prior generic theory. It is important to acknowledge, however, that what enables the practitioner to

deal with the unique case while recognising it as such, is that there are nevertheless some relative constants in his reflection-in-action. We have noted that the practitioner draws on some element of familiar repertoire. A practitioner belongs to a community of practitioners, he is a member of a profession, and therefore shares a language and media with his colleagues. By drawing on the language and media of his professional community and on his repertoire, the practitioner is provided with the means for describing the reality of the problem situations, for constructing the 'virtual worlds in which to carry out imaginary rehearsals of action' (p. 271). The 'role-frames' that provide a means of organising the exemplars within his repertoire, as well as the practitioner's appreciative systems and overarching theories, provide other constants. These constants change over time - the repertoire is necessarily cumulative - but at a much slower rate than theories developed for particular phenomena or frames for particular problem situations. They therefore provide the practitioner with relatively solid references, so that, in reflection-in-action he can allow his theories and frames to disintegrate.

It seems self-evident to note that the practitioner who operates by reflection-in-action becomes researcher into his own practice and thereby engages in a continuing process of self-education. His practice is his major source of renewal.

When we reject the traditional view of professional knowledge, recognising that practitioners may *become* reflective researchers in situations of uncertainty, instability, uniqueness and conflict, we have recast the relationships between research and practice. For on this perspective, research is an activity of practitioners. It is triggered by the features of the practical situation, undertaken on the spot, and immediately linked to action. There is no question of an 'exchange' between research and practice or of the implementation of research results, when the frame - or theory-testing experiments of the practitioner at the same time transform the practice situation. Here, the exchange between research and practice is immediate and reflection-in-action is its own implementation. (pp. 308-9)

The practitioner is researcher.

Nevertheless, in any community of professionals, it is important that the professional practitioner does not perform in isolation, and that ideas and understandings gain from reflection which is informed by other

practitioners and by those whose work is to focus in greater depth and detail on particular aspects of professional knowledge and practice. Schön contends that 'reflective research requires a partnership of practitioner-researchers and research-practitioners' (p. 323). The role of the researcher is to help the practitioner build the coherence of his reflection-in-action. Thus the agenda for reflective research will be generated by dialogue between practitioners and researchers, and implementation will be built into the process of reflective research.

Schön suggests four kinds of research which could be conducted external to the reflective practitioner in order to enhance his capacity for reflection-in-action. The first kind of research is 'frame analysis', a study of the ways practitioners frame problems and roles. Frame-analysis research can assist practitioners to become aware of and criticise their tacit frames and provide them with knowledge of alternative frames. To help build practitioners' repertoires a second useful area of research is the collection of descriptions and analyses of images and exemplars of practice situations, with case studies being a particularly appropriate method. A third area meriting particular research is the investigation of those unique situations which do not seem to fit the practitioner's fundamental methods of inquiry and overarching theories, so that researchers could seek to find some general themes linking situations which would assist the practitioner to reconstruct his theories. Finally, the fourth area for research is the process of reflection-in-action itself. Schön suggests that the very process of describing their own performances of reflection-in-action helps practitioners to gain greater insights into their own cognitive processes. When this process is paralleled by the vignettes or case studies prepared by researchers observing practitioners engaged in reflection-in-action, the possibility for illuminative research is greatly enhanced. (pp. 309-322)

The modes of collaborative research envisaged by Schön are vastly different from the forms of exchange that are possible when practice and research conform to the model of applied science. Continuing education, which Schön describes as often being 'considered as second class activities', will now 'rise to first-class status as [a vehicle] for research' (p. 324).

In attempting to present, in outline, the theories of Schön, Eisner and Stenhouse, I am seeking a platform from which to construct an understanding of the ideas and theories implicit in the notion of reflective practice. The point, of course, is that only through endeavouring to make explicit these ideas and theories, can I hope to apprehend the ways in which reflective practice might enhance the practice of teaching, and only then can I explore the ways in which approaches to professional development can encourage and support teachers' reflective practice. It goes without saying that Schön, Eisner and Stenhouse provide three platforms, each with its own unity and coherence, but there are points of contact and overlap. More than that, I believe all three share a common orientation to the connections between knowledge and practice.

'Man by nature,' remarked Aristotle, 'seeks to know' (quoted by Eisner, 1985, p. 149). Fundamentally, Stenhouse, Eisner and Schön are each concerned with questions relating to professionals' knowledge. What is the nature of teachers' knowledge about teaching? How do they acquire that knowledge? What are the sources of teachers' knowledge? How do they make sense of the world of teaching and schooling? And how do they make use of the knowledge they acquire in their professional practice?

In arguing their theories of teacher as researcher both Stenhouse and Schön repudiate conceptions of knowledge as something static which is transmitted to teachers, who are conceived as technicians and whose task is merely to apply the techniques derived from scientifically conducted research. As noted earlier, Schön claims that 'the Positivist view of science' is the root of 'the dilemma which afflicts the professions' (Schön, 1983, p. 48). In that propositional knowledge is derived from research, science is traditionally seen 'after the fact', but it is the exploratory grappling with ambiguities and uncertainties 'before the fact', in which professionals display artistic and intuitive approaches to inquiry, that provides the source from which Schön seeks to derive 'an epistemology of practice' (p. 49).

In the 'swampy lowlands' of ambiguity, instability and uncertainty, but also of relevance, through the process of reflection-in-action, says Schön (but to which I wish to add reflection-on-action), the practitioner grapples with the problematic nature of practice. The reflective practitioner

attempts both to set the problem and to solve it. This is essentially a creative activity, involving 'naming' and 'framing' the dimensions of the problematic situation. To each of these dimensions the practitioner formulates tentative responses, thus engaging in a kind of conversation with the processual problem setting and solving. In Schon's words, the practitioner listens to the situation's 'backtalk' (p. 150). As in any everyday conversation, metaphoric thought is part of the experimental and reflective conversation, and it is metaphoric thought that frequently enables imaginative leaps which can result in the tentative solutions put forward for testing. What the practitioner sees in the uncertain, problematic situation, then, depends on what he makes of the 'swampy lowland' setting and on the experimental conversation he conducts with the situation. This reflective conversation is spiral in nature, because as each instance of reflection provides fresh understanding, the practitioner moves on to further hypothesising, testing, reflection, understanding and appreciation.

The practitioner engages in a process of constructing his understanding of the problematic situation. Each problem confronted by the practitioner adds to his professional knowledge and to his repertoire of processes and strategies, on which he will draw in confronting future problematic situations. The reflective practitioner progressively constructs his own knowledge.

In promoting the idea of practitioner as researcher, then, Schön describes in some detail the practitioner's reflection-in-action or research-in-practice; he suggests that some practitioners exhibit knowing-in-action and that their satisfactory ways of handling problem situations are the results of their reflection-in-action and ability to identify problems amidst uncertainty, complexity and uniqueness. Practice based on informed reflection-in-action is proposed as the solution to the crisis in confidence in the professions, the outcome of the dominance of Technical Rationality and the way it has influenced approaches to research in the professions. Schön asserts that continuing education will have a key role as a vehicle for practitioner research, yet he does not say how this can be facilitated and he pays very scant attention to reflection-on-action. His analysis of the way practitioners use their professional knowledge applies to their reflection-in-action and is therefore essentially pragmatic. Schon's focus is on how

professionals use their practical knowledge, but his focus cannot be said to be critical in the sense of 'marshalling intellectual capacity [for] ... analysing, reflecting on and engaging in discourse about the nature and effects of the practical aspects of ... [professional practice] and how [it] ... might be altered' (Gitlin and Smyth, 1989, p. 114). Schön does not ask questions about the essential purposes of reflection, nor does he ask whom it benefits. And he does, in fact, leave to chance the development of the reflective practitioner.

We saw earlier that Stenhouse's purpose was the 'betterment of teaching', which he sought to achieve through teachers' critical and systematic examination of their practice. Stenhouse aimed to inculcate research-based teaching, in which the teacher is also researcher. Fundamental to Stenhouse's theory is the notion that curriculum development translates ideas into classroom practice; thus, the curriculum operates as a research probe for exploring and testing ideas in practice. As a consequence, the quality of curriculum development rests on the capacity of teachers to take a research stance to their own teaching. In Stenhouse's ideal world teachers are learners whose approach to their knowledge and ways of knowing is speculative. In their learning teachers operate from a subjective perspective, they are curious, seeking to understand through critical reflection, not only the results of their teaching, but also the theories which guide their practice. Their systematic and thoughtful testing of ideas works to strengthen their practice, continually and incrementally. Teachers are constructors of their own knowledge. For Stenhouse, this describes the teacher as autonomous professional. However, the autonomous professional does not practice in isolation, with the possibility of wallowing in his own self-perpetuating ignorance. Contact with other teachers is vital; this includes observing other teachers in operation and being observed by others.

Central to the theories of both Stenhouse and Schön is the premise that reflective practitioners progressively construct their own knowledge through both heuristic and hermeneutic approaches to their own experience in professional practice. This notion of knowledge as personal construction is essential to any conception of reflective practice. Thus, the conception of teacher as researcher carries the implicit theory of teachers as constructors of their own knowledge. To make this assertion is, I think, to

go further than Grimmett et al. (1987) who, in reviewing research on reflection in teacher education, comment:

At its root, ... the study of reflection is the study of what it is to be a teacher. As a result, much of the work on reflection is concerned with a way of being-in-the-world ... (p. 30)

Eisner's intention is to show how artistic forms of understanding can assist both teaching and research. He claims that a key feature of excellent teaching is artistry, and if teaching can be regarded as a form of inquiry, scientifically derived research methods are less than adequate to revealing the complexity, the ambiguity and the richness of what happens in classrooms. The Positivist mode of research, claims Eisner, shackles the imagination with the result that crucial distinctions among various modes of teaching fail to be made. His claim that teaching matters 'when what is taught is worth the students' time' (1979, p. 165) is irrefutable; moreover, it calls to mind Elliott's discussion, mentioned in Chapter 3, of the kind of teaching we value, that is to say, teaching students how to learn and how to take responsibility for their own learning.

Eisner echoes Schön in refuting the notion of a scientifically derived body of propositional knowledge as being able, as it were, to drive practice:

As it is now conceptualised, educational research is a species of scientific inquiry, and scientific inquiry couches its conclusions and its theories in a language of propositions. ... Because in science it is propositions that must carry forward meanings about empirical matters and because propositions can never (in principle) exhaust the meanings of the qualities for which they stand, propositions are de facto reductions of the realities we hope to know. Because the realities of the classroom and of social life in general are, at base, an array of qualities for which meanings are construed, they will always present more to the perceptive teacher than propositional language can ever capture. (Eisner, 1985, p. 265)

Furthermore, 'the use of research in education is ... heuristic; it provides a framework that we can use to make decisions, not a set of rules to be followed slavishly' (1985, p. 258). Schön, Stenhouse, and Eisner reject predictability and control as the outcomes of the sound application of empirical knowledge.

In offering us the concepts of educational connoisseurship and educational criticism, Eisner contends that the study of educational activity should be conceived as an artistic problem, one requiring qualitative methods. Connoisseurship is the art of appreciation, he says, the ability to perceive what is subtle, complex and important, and is essential to criticism. 'Connoisseurship ... provides the content for knowing. It makes possible the stuff we use for reflection' (1985, p. 153). Criticism, on the other hand, is the art of disclosure, with its quality being dependent on the quality of the critic's perceptions. 'The function of the critic is to illuminate, ... to write in a way that will enable the reader to vicariously participate in the events that constitute that aspect of classroom life about which the critic speaks' (pp. 154-5).

Reminding us of the experimental conversation, which Schön claims the reflective practitioner conducts with the problematic situation he is attempting to resolve, Eisner suggests that 'criticism often takes the form of a dialogue between the teacher and the critic ...' (p. 157). As noted earlier, Eisner does not conceive of the educational critic as a practising teacher, but rather as someone who has probably had experience of teaching in order to develop connoisseurship. But what if the educational critic were also currently teaching, and what if the subject of his criticism were his own teaching viewed perhaps with the aid of video, or if the subject were that of a close colleague?

Then, Eisner's contention that 'a language of criticism ... can illuminate precisely those aspects of classroom life that propositional discourse cannot locate ... [enabling] the teacher to see and therefore to have a basis on which his or her intelligence can operate' (1985, pp. 266-7), takes on a very potent meaning. So, too, does the following:

If the forms of perception, conception, and expression define the content of what we know, then ... artistic discourse [is] relevant for revealing the qualities that constitute educational practice ... Perhaps the major virtue of educational criticism is that it expands our understanding of how we come to know, and as a consequence it makes new avenues for educational evaluation and research possible. (p. 159)

The potential of artistic forms of representation and discourse for significantly enhancing critical reflection emerges strongly.

Like Stenhouse and Schön, then, Eisner also seeks 'to form a conception of mind, to create an image of a person and to learn how that person comes to know. At base, the issues with which I have been concerned reside in grasping the forms of rationality that humans can employ in the course of their lives' (Eisner, 1985, p. 148). As artistic approaches to research, connoisseurship and educational criticism 'are less concerned with the discovery of truth than with the creation of meaning, ... the creation of images that people will find meaningful and from which their fallible and tentative views of the world can be altered, rejected, or made more secure' (p. 198). Far from being passive recipients of knowledge, teachers are conceived as the creators or constructors of their own knowledge.

There is a coherence in the theories of Stenhouse, Eisner and Schön in that each holds that knowledge is acquired through personal construction. How is it that an individual comes to know? As Eisner says, 'each of the senses provides an avenue for experience', thus providing 'the content for consciousness' (1985, p. 149). How does the individual represent what he has come to know both for himself and for others? What is the effect of the forms of representation that the individual chooses on his perception? Can forms of representation serve to enhance perception, thus enhancing knowledge? What is the significance of heuristic and hermeneutic studies of professional educational practice? How might these questions lead to an understanding of the nature of reflective practice and of its contribution to 'the betterment of teaching'? I do not intend to leave these questions hanging, as it were. These are the questions which have puzzled me and led my thinking, and it is these questions to which I wish to seek answers, in a very tentative way, in the following chapter.

Chapter 5

Towards a Theory of Reflective Practice

It is the weaving together of what seems disparate, making connections that elude casual, or sometimes even focused observation, that gives teaching its life as a profession.

Mary Louise Holly (1989).

How can I know what I think till I see what I say?

W. H. Auden

I concluded the previous chapter with a number of questions concerning ways of knowing and perceiving, forms of representation, and the relationships among them, questions which are implicitly posed by the theories of Schön, Stenhouse and Eisner. I wondered, too, how addressing these questions might lead to an understanding of the nature of reflective practice and of its contribution to 'the betterment of teaching'? In reviewing the work of Schön, Stenhouse and Eisner, two fundamental premises are revealed as being common to their theories: firstly, that Positivist empiricist science has failed to affect classroom practice, and secondly, that knowledge is a personal construct. Schön and Eisner have already been quoted extensively on the first point. I now turn to a comment Stenhouse made in 1980:

Good teachers ... are professionally the dependants of researchers or superintendents, of innovators or supervisors.... [But they] know that ideas and people are of not much real use until they are digested to the point where they are subject to the teachers' own judgement.it is the task of all educationalists outside of the classroom to serve the teacher; for only teachers are in a position to create good teaching. (quoted in Hopkins, 1987, p. 113)

For Stenhouse the teacher as researcher concept achieves emancipation for teachers in a top-down system of education which 'denies individual dignity by returning to them some degree of self-worth through the exercise of professional judgement. In terms of curriculum and teaching, for example, emancipation involves reconceptualising curriculum

development as curriculum research and the linking of research to the art of teaching' (Hopkins, p. 113).

Many writers, whose work proceeds from the notion of teacher as reflective practitioner, include explicit rejections of empiricist scientific research. For example, in considering the conception of teaching as applied science in chapter 3, we saw how several writers reject this conception as being unhelpful to attempts to describe the nature of teachers' work in their classrooms. One of these writers is Elliott (1989) who discusses attempts to find a scientific basis for judging teacher competence and then rejects the capacity of process-product research to identify general rules for defining competent practice. (pp. 239-40)

To support the concept of teacher as researcher, Hopkins (1987) argues that traditional educational research is incapable of helping the classroom teacher improve his own practice, citing both 'the differing realities perceived by teachers and researchers' and 'the limitations of the ubiquitous "agricultural-botany paradigm" for educational research' (p. 114). Hopkins writes of the difficulty of applying the findings of traditional research to classroom practice, noting that the results of research are frequently either too specific or too general and contain few unambiguous signposts for action. Consequently teachers often consider educational research to be irrelevant to their lives; and the work of the educational researcher makes little impact on the world of the teacher. The perspectives of researchers are derived from their academic disciplines. Teachers' knowledge of teaching is derived 'from continual participation in situational decision-making and the classroom culture in which they and their pupils act out their daily lives. So one reason why traditional research is of little use to teachers is because of the differing conceptions of teaching held by teachers and researchers.' (p. 114) Another problem, mentioned by Hopkins, relates to what is meant by 'meaningful action'. The interactions between teachers and pupils that 'result in effective learning are not so much the consequence of a standardised teaching approach but the result of teachers and pupils engaging in meaningful action. And meaningful action cannot be standardised by control or sample' (p. 115).

Beyer (1987) similarly rejects both the notion that empiricist science can 'legitimate educational theory or practice with any degree of certainty', and the domination of teacher education by 'positivism and technical rationality' (p. 19). He comments, too, on competency-based approaches to teacher education, which he says have the effect of trivialising 'the relationship between teacher and learner by assigning to the teacher the role of technical, value-free behaviour manager.' The effect of such approaches, suggests Beyer, is for education to be viewed as 'a problem in systems management and human engineering, while the solutions to the problems of teacher education are seen to lie within the grasp of "science" and technology' (p. 20). In this light, curriculum knowledge is mainly presented as 'a predefined set of "worthwhile" activities to be mastered.' This 'externalised' or 'objectivist conception of knowledge' has the effect of leading teachers 'to believe that knowledge is something that is detached from the human interactions through which it was constituted and by which it is maintained' (pp. 21-2). In accepting this view of knowledge, teachers are, of course, reflecting the view held by their academic leaders and supervisors.

Among other writers to reject the empirical science paradigm as being the only model for educational research is Elbaz (1987), who notes that 'there is a large gap between what researchers produce as reconstructions of teachers' knowledge, even when this research is carried out explicitly "from a teacher's perspective"' (p. 46). Woods (1987) also comments on 'the irrelevance to teachers of much educational research, of the difficulty of relating theory to practice' (p. 121).

Typically, educational researchers deal with discrete aspects, uncontextualised in space or time. ... knowledge is produced within a scientific paradigm, whereas many would claim that teaching is also, and perhaps more essentially, an art. Thus, as researchers ... struggle to improve the scientific respectability of their work, so they increasingly distance themselves ... from the essence of teaching which ... is not amenable to scientific methods. (pp. 121-2)

Finally, Gitlin and Smyth (1989) comment on the effects of the dominance of Positivist scientific research on the hierarchical structure of educational systems:

... the prevailing view ... [is] that the experts in teaching are not teachers but scientifically trained technocrats. Although teachers might know a great deal about teaching, the system of hierarchical subordination conveys a clear message that in matters of complexity, ambiguity and value conflict, ... intuition and tentative knowledge rate low in the scheme of things. Provisional knowledge of the kind that teachers have is discounted and has little chance of competing with that which is scientifically legitimated. (p. 55)

The second premise mentioned above, that of knowledge as personal construct, appears to involve a significant paradigm shift in theories about teacher knowledge. It immediately raises questions concerning the knowledge that teachers need in order to be prepared for their teaching tasks, how they are to acquire such knowledge, what are the roles of initial teacher education and professional development, and so on.

On 'the matter of reconceptualisation or reorientation of inquiry', Schubert (1989) cites Kuhn's (1962) The Structure of Scientific Revolutions which argues:

... the history of science reveals that inquiry in the natural sciences proceeds through periods of adherence to a dominant paradigm - a set of values and epistemological assumptions that characterise the conduct of a particular realm of inquiry. Eventually findings emerge that seem to be anomalies ... As such anomalies increase, paradigms shift to other guiding values and assumptions, and finally new paradigms become dominant and are passed on as the received orientations. (Schubert, p. 27)

Schubert notes that Kuhn raises the question of whether the 'social sciences and humanities develop by one paradigm at a time, or ... [whether] different paradigms of inquiry [can] exist simultaneously within a given area of study' (p. 27).

The point I wish to make is that the ideas contributing to the notion of teachers as reflective practitioners constitute a paradigm shift. In Positivist empiricist research the authority of knowledge is derived from the research and the methodology employed. Reflective practice constitutes 'a fundamental reconceptualisation' (Schubert, p. 27) towards the practical knowledge of teachers, thus supporting 'the primacy of personal or experienced knowledge' and recognising 'teachers and learners as indispensable researchers on teachers and teacher education. The insights

that they develop as they interact in the face of daily dilemmas are the experience that leads to a deeper understanding of the essence of pedagogic phenomena' (p. 29). It is easy to see why several writers on approaches to developing reflective practice also take up the arguments of our luminaries in rejecting empirical research methodology.

But what is meant by knowledge as personal construct? By way of introduction to a discussion of this concept, it is worth considering a distinction, noted by Stenhouse, between information and knowledge: 'Information is not knowledge until the factor of error in it is appropriately estimated' (quoted in Groundwater-Smith, 1988b, p. 97). Groundwater-Smith's explanation of this point is insightful:

Essentially, what Stenhouse is saying to us is that we are the inventors of our own knowledge and the quality of the invention is dependent upon our ability to evaluate the information which is available to us, be it sensory, first hand information or vicarious, received information. This involves us in a never-ending stream of judgements, of broad and fine discriminations, so that the gaining of knowledge is a transforming process. As such it is personal, dynamic and never complete. This representation of the knowledge-gaining process applies to both knowledge about things and knowledge about ideas, it embraces the physical and the imaginative worlds. (1988b, p. 97)

Britton's (1973) Language and Learning is very helpful to our task of developing an explanation of the theory of learning as personal construct. Britton's theory is that we all use 'language as a means of organising a representation of the world - each for himself - and that the representation so created constitutes the world we operate in, the basis of all the predictions by which we set the course of our lives' (p. 7). All our learning is derived from the world we live in, from our experiences of our world:

The world we respond to, in fact, the world towards which our behaviour is directed, is the world as we symbolise it, or represent it to ourselves. ... Your representation of the world differs from mine, and this is not only in so far as the world has used us differently - that is to say we have had differing experiences of it. It is also because your *way of representing* is not the same as mine. ...

I look at the world in the light of what I have learned to expect from past experience of the world. That is to say, there is on the one hand my world representation - the accumulated record of my past

experience - and there is on the other hand the process of representing to myself whatever of the world confronts me at any given moment. ... What takes place in the confrontation may contradict or modify or confirm my expectations. My expectations are hypotheses which I submit to the test of encounter with the actual. The outcome affects not only my representation of the present moment, but, if necessary, my whole accumulated representation of the world. *Every encounter with the actual is an experimental committal of all I have learned from experience.* (pp. 14-15)

Britton refers to the work of George Kelly, whose theory of human behaviour is, he says, consistent with his own. Interestingly, from the point of view of our earlier discussion of empiricist research, Kelly connects typical human behaviour with the scientist's method of inquiry - formulating hypotheses, or making predictions about the way things are, testing them in the light of what actually happens, and then reformulating hypotheses. Britton quotes Kelly:

Man looks at his world through transparent patterns or templates which he creates and then attempts to fit over the realities of which the world is composed. The fit is not always very good. Yet without such patterns the world appears to be such an undifferentiated homogeneity that man is unable to make any sense out of it. Even a poor fit is more helpful to him than nothing at all. ...

Experience is made up of the successive construing of events. It is not constituted merely by the succession of events themselves ... It is not what happens around him that makes a man's experiences; it is the successive construing and reconstruing of what happens, as it happens, that enriches the experience of life. (Britton, p. 17)

Britton comments that the outcome of this process of a person's representing the world to himself is a person's 'construction system'. He quotes Kelly again:

The constructions one places upon events are working hypotheses which are about to be put to the test of experience. As one's anticipations or hypotheses are successively revised in the light of the unfolding sequence of events, a construction system undergoes a progressive evolution. (Britton, p. 17-18)

Kelly's view of human behaviour is one that 'makes living very like learning' as it 'equates learning with learning from experience'. (p. 18)

According to Britton, 'Kelly's "construction system" does not cover all forms of representation' and it is the way that individuals represent experience that is crucial to understand. Britton notes that 'events take place and are gone: it is the representation that lasts and accumulates and undergoes successive modification.' Thus his argument now includes our mnemonic powers: 'Our representation of past experience constitutes a frame of reference by means of which we recognise familiar aspects of the present.' (p. 18)

'Only symbolic expression,' Cassirer says, 'can yield the possibility of prospect and retrospect, because it is only by symbols that distinctions are not merely *made*, but *fixed* in consciousness.' (quoted in Britton, p. 18)

Memory is facilitated by our ability to represent experience through the 'manipulation of symbols' (Polanyi, 1958, p. 83). Britton contends that 'language is one way of representing experience, ... a key way' (Britton, p. 19), and Polanyi supports his contention by remarking that 'the process of articulation has rendered immensely effective assistance to our native mnemonic powers', since 'the power of systematisation dependent on speech' enables man to reorganise remembered experiences. Articulation assists 'the speculative imagination of the inventor' (Polanyi, pp. 84-5). 'Words are symbols; their power lies not in themselves but in what they name and stand for and all the circumstances surrounding our experience in coming to understand those symbols' (Chambers, 1977, pp. 6-7).

We habitually use language to reconstrue experience, to recall events and interpret them, to make sense of them in a way that was not open to us while they were taking place. 'We symbolise reality in order to handle it.' (Britton, p. 19-20) A comment from Sapir (1961) points to the fact that in symbolising experience, we are also reducing it:

... language is primarily a vocal actualisation of the tendency to see realities symbolically ... an actualisation in terms of vocal expression of the tendency to master reality not by direct and *ad hoc* handling of this element, but by the reduction of experience to familiar form. (quoted in Britton, p. 20)

We immediately make the connection with Kelly's remark, cited earlier, that we look at the world 'through transparent patterns or templates'

which we attempt to fit over the realities we confront in the world. Kelly comments that 'the fit is not always very good'. This, of course, is in the nature of a template or a frame, to use Schön's term. By imposing a frame over whatever it is we are viewing, we are at the same time excluding. It may be that we are excluding somewhat hazy areas of experience, those that are at the edges, as it were, but we are nevertheless making decisions that some aspects of experience are being excluded. We construct the reality of remembered experience by framing the aspects that we will handle. There is a fit here with what Schön is saying when he discusses the problem-setting process in which practitioners name the things to which they will attend and frame the context in which they will attend to them.

Polanyi also comments on the effect of articulation in reducing experience. We always know more than we can say. 'Articulation pictures the essentials of a situation on a reduced scale, which lends itself more easily to imaginative manipulation than the ungainly original ...' (p. 85). It follows from this that as language becomes increasingly formalised, as in propositional science where the endeavour is to articulate ideas as precisely and impersonally as possible, the articulation is increasingly denuded of content and experience (p. 86). 'When the arts of knowing are explained by maxims, these never disclose fully the subsidiarily known particulars of the art, so that the powers of articulation are ... restricted' (p. 90). The language of propositional science, produced through Positivist empiricist methodology, which declines to take account of the experience of individuals, is thus in contradiction to the theory of knowledge as personal construct on which the notion of teacher as reflective practitioner is premised.

The connection can be made with Eisner's (1985) comment:

To miss what is special about schools and classrooms is to diminish the probability that what will be learned will be useful to those who work in such settings. Like language [which shapes perception], theory is both an asset and a liability. It is an asset because it provides guidelines for perception: it points us in directions that enable us to see. But it is also a liability because, while it provides the windows through which we obtain focus, it creates walls that hamper our perception of those qualities and processes that are not addressed by the concepts we have chosen to use. Our theoretical

frameworks function as templates for perception - every template conceals some parts of the landscape just as it brings other parts to our attention. (Eisner, 1985, p. 261)

Articulation has the effect of reducing experience to manageable representation of that experience. Language is also 'our principal means of classifying, and it is this classifying function that goes furthest towards accounting for the role of language as an organiser of our representations of experience' (Britton, p. 23). For instance, we characteristically use talk to come to grips with current or recent experience, to organise it and deal with it. The classifications we choose are our own, but in organising our classifications we are assisted by the structures within our language or symbol system. The relevant point, of course, is as Britton says: 'Our world representation is a storehouse of the data of our experience: it is of predictive value to us in so far as the data are retrievable' (p. 28).

Polanyi claims that it is 'the tacit faculty which accounts ... for all increase in knowledge achieved by articulation' and that this is revealed in the relations between thought and speech (p. 100). We have an innate urge to understand experience: 'The shaping of our conceptions is impelled to move from obscurity to clarity and from incoherence to comprehension, by an intellectual discomfort similar to that by which our eyes are impelled to make clear and coherent the things we see' (pp. 100-101).

Langer (1953) says:

Thinking is part of our instinctive activity, the most human, emotional and individual part. But [it] ... is also our most unmistakably social response, for it is so intimately bound up with language that meditation is inseparable from ways of speaking ... Discursive thought, so deeply rooted in language and thereby in society and its history, is in turn the mould of our individual experience. We observe and hold in mind essentially what is 'speakable'. (p. 220)

I am reminded of Wittgenstein's comment: 'The limits of my language mean the limits of my world' (quoted in Hardy, 1978, p. 17).

As mentioned above, language is our habitual means for reconstruing experience and for interpreting it; and it is from reconstruing experiences,

from the representations that we make of them, that we learn. Langer tells us:

Memory is the great organiser of consciousness. It simplifies and composes our perceptions into units of personal knowledge. ... To remember an event is to experience it again, but not in the same way as the first time. Memory is a special kind of experience, because it is composed of selected impressions, whereas actual experience is a welter of sights, sounds, feelings, physical strains, expectations and minute, undeveloped reactions. Memory sifts all this material and represents it in the form of distinguishable events. ... most events are recalled as separate incidents, and can be dated only by being thought of in a causal order ... (p. 263)

Britton notes that "'memory", as we usually think of it, takes a narrative form' (p. 71). We represent what happens to us by deriving 'a narrative from the flux of sense impressions' (p. 153). From Hardy (1978) we learn that narrative is 'the primary act of consciousness' (p. 15), 'a primary act of mind transferred to art from life' (p. 12). Hardy writes of 'that inner and outer storytelling that plays a major role in our sleeping and waking lives. For we dream in narrative, daydream in narrative, remember, anticipate, hope, despair, believe, doubt, plan, revise, criticise, construct, gossip, learn, hate, and love by narrative. In order really to live, we make up stories about ourselves and others, about the personal as well as the social past and future' (p. 13). Langer adds, 'Life is incoherent unless we give it form ... "put it into words", tell it to ourselves, compose it in terms of "scenes", so that in our minds we can enact all its important moments' (p. 400). Langer also notes, conversely, that narrative 'has always the semblance of memory' (p. 265).

The process of reconstruing experience is, in effect, a process of 'virtually making things happen', it is an enactment of our 'own construction of events' (Britton, p. 88). Indeed, Britton tells us that is in our nature that 'both in prospect and in retrospect [we] can respond to the quality of events in a way [we are] unable to do at the time of their happening' (p. 102). When the events of our experience are in train, we are participants, but 'in contemplating our own past or future experience we take up in privacy the role of spectator, *representing*, as we do so, and, at one and the same time, *evaluating* those experiences or possible experiences' (p. 110). Britton is referring to the work of Harding (1978) who argues that the spectator role enables detached evaluation of experience to take place.

... the events at which we are 'mere onlookers' come to have, cumulatively, a deep and extensive influence on our systems of value. They may in some ways be even more formative than events in which we take part. Detached and distanced evaluation is sometimes sharper for avoiding the blurrings and bufferings that participant action brings, and the spectator often sees the event in a broader context than the participant can tolerate. To obliterate the effects on a man of the occasions on which he was only an onlooker would be profoundly to change his outlook and values.

Besides looking on at events in progress we can be spectators in memory or imagination of things past and things anticipated; further we can release our imaginings from practical limitations and consider what might have been and what might be if the restrictions of reality were suspended. (Harding, 1978, p. 61)

Harding warns us that spectators at actual events can 'grossly distort' reality; in prospect or retrospect the 'unwitting distortion' is greater. However, 'the influence of our fellow-onlookers draws our attention to one aspect of events rather than another, changing the emphasis and bringing to mind what we might have overlooked' (p. 63). Conversation, in which understanding of events witnessed by a group of fellow-onlookers is articulated, is a vital part of this evaluation process. Each onlooker must be careful to select and organise his language to convey his meaning appropriately. It is probably the actual process of articulation that assists the onlooker to develop and refine his own interpretation of the events. Britton comments on 'the possibility that we might in fact, on occasion, represent actuality in language and then, going back to examine the language we have produced, discover from it something about the nature of relationships existing in reality' (Britton, p. 201).

Harding continues:

The basic process connecting the onlooker with any event, real or fictional, involving living things, is that of imagining. The fundamental fact is that we can imagine ourselves in a situation very different from the one we are in, we can create images of the sensations we should have, we can become aware, in part, of the meanings we should see in it, what our intentions, attitudes and emotions would be, what satisfactions and frustrations we should experience. (Harding, p. 65)

By means of 'empathic insight' (p. 70) the spectator can enter imaginatively into the lives of others, contemplating them as fellow beings (p. 71), and thus enlarging his understanding of life's possibilities. But Harding reminds us 'that the subtlest and most intense insight into the experience of another person is something far different from having the experience oneself' (p. 70). The processes of contemplation and evaluation frequently enable the spectator to develop a keener understanding of events than the actual participant; irony is dependent upon this factor of distance. It is important to note, however, that learning occurs in both the participant and the spectator modes, and we can be participant in or spectator at an event, and we can, of course, be both. The participant has a new element of actual experience, which will be reconstrued when he adopts, as it were, the spectator role. The spectator construes or reconstrues the particular event in terms of his accumulated view of the world.

There is a ready connection here with the processes of problem-setting described by Schön. The factors of distance and contemplative speculation, as well as the professional's ability to draw on his repertoire of previous 'cases', would be argued by Schön, I suspect, to constitute much of the professional's problem-solving capacity. I wish to make the connection, too, with the notion of virtual experience, mentioned in the arguments of both Eisner and Schön.

'As adults, we rely upon language as a means of making other people's experience our own - and, through our reading, a vast field of secondary experience lies open to us by this means' (Britton, 1973, p. 136). Britton suggests that 'it requires an act of imagination to construct any situation in which we actually find ourselves' (Britton, 1978a, p. 41). Language is one means of representing to ourselves both the actual and the imaginary worlds. 'Putting experiences into words is a process of ordering them in a particular way, imposing on the data, in fact, some effects of the organisation inherent in language itself. (Language ... is rule-governed behaviour.) ... by the use of language we construct the world of ideas ... as soon as we bring words into our reflection of experience, the image takes one step towards the idea' (pp. 41-2). 'The organisation to which images are submitted for reflective purposes' enables us 'to arrive ... at knowledge' (p. 43).

For scientific propositional knowledge, 'the effort is to find a fixed, unchanging meaning for words; and so scientific language - and to some extent all purely factual uses of language - tries to employ words in as objective and unvarying a way as possible. When words fail to behave themselves, as they frequently do, scientists tend to invent a new language composed of tightly defined symbols to express their thoughts and discoveries' (Chambers, pp. 8-9). Thus scientific language, as Chambers defines it, intends to deny the essential nature of words as captured by Barfield in 1924: 'The full meanings of words ... are flashing iridescent shapes like flames - ever flickering vestiges of the slowly evolving consciousness beneath them' (quoted in Langer, p. 238).

Literary language endeavours:

... to fuse disparate experiences into coherent wholes; the subjective and the objective, the personal and the specific with the general and the universal. Literary language is vital, shifting, fluid; it looks constantly for new structures, new combinations that strike out new meanings. It is concrete, employs images, especially metaphor, and images say several things at once. Irony and paradox bring the disparate and hitherto unconnected into relationship revealing new shades of meaning, or refreshing the worn, the tired, the clichéd.

... literary language is a living language ... when it is at its best [the attempt] is to catch a truth of life, life in its diversity, complexity, familiar strangeness, and to re-create its very texture. And by catching it thus ... an author enables himself and others to lay hold of and to contemplate experience ... (Chambers, p. 9)

Poetic language seeks to create the 'primary illusion, hold the reader to it, and develop the image of reality so it has emotional significance above the suggested emotions which are elements in it' (Langer, p. 245). I recall again the words of C. S. Lewis (1961): '... in reading great literature I ...transcend myself; and am never more myself than when I do (p. 141).

It is literary language, with the qualities that make it a 'living language', to which Eisner is referring when he discusses the kind of language that is necessary to achieve the purposes of educational criticism:

If to know about the character of life in a school or classroom ... requires one to know not only about their surface appearance, but

also about the character of life within them, then it is imperative that those who wish to make such knowledge public must use means that embody the qualities they seek to express. It is here that expressive modes of treatment are crucial. (Eisner, 1985, p. 245)

Langer describes literature as creating 'the illusion of life in the mode of a virtual past' (Langer, p. 266). A work of literature, she says, 'creates a "virtual life"' (p. 228). It gives us the 'illusion of experience. It always creates the semblance of mental process, that is, of living thought, awareness of events and actions, memory, reflection, etc. ... everything that occurs in the frame of its illusion has the semblance of a lived event' (p. 245). It is as though we were looking back on an experience we have not had. 'For the primary illusion of literature, the semblance of life, is abstracted from immediate, personal life ... Virtual events are the basic abstraction of literature, by means of which the illusion of life is made and sustained and given specific, articulate forms' (p. 217). 'Semblance', however, 'is not necessarily deceptive' (p. 302).

'It is perception moulded by imagination that gives us the outward world we know' (p. 372). It is thus our abilities to perceive and construe reality, to imagine other virtual realities, and to organise and symbolise these realities, both actual and virtual, that enable us to interpret and come to know the world we live in (and the worlds of others, for if we were confined to our own puny existences, our lives would be poor, indeed). 'Judgement on all human affairs - political, social, economic, educational - is built upon the sympathy and understanding derived from both actual and "virtual" experience. Cassirer reminds us of this when he says, with reference to the historian's task: "If I put out the light of my own personal experience I cannot see and I cannot judge of the experience of others."' (Britton, 1973, p. 154)

There is a clear connection here with Eisner's concern for the development of an artistic perception:

Artistic perception is ... concerned with exploring the characteristics that constitute the complex array of qualities that we encounter ... [What it] is after is more perception and the sense of life that it generates. ... In artistic perception we ... want to experience the pervasive qualities of *this* classroom, *this* school, *this* teacher. ... When we can manipulate the images we have encountered in our mind's eye to explore and play with alternatives that cannot be

encountered in the empirical world, we are called imaginative. The outer eye gives us the world, the inner eye gives us possibilities to pursue. (Eisner, 1985, p. 8)

A second dimension and equally important is the character of the form that is created by the percipient to disclose what he or she has experienced. ... The artist works directly with qualities and conveys meaning by the way in which those qualities are themselves formed. For educational evaluation ... the form of the qualities we use: the particular words we select, the sentences we construct, the cadence, tempo, tone, and tenor of our language is a primary means for conveying what our (hopefully) refined sensibilities have revealed to us. (pp. 9-10)

For Eisner, of course, the development of artistic perception is the prerequisite for educational criticism, by means of which the real and pervasive qualities of educational life can be rendered. The idea of educational criticism is derived from art criticism, and perhaps more particularly from literary criticism. Britton (1978b) suggests that 'to be made aware of the processes that have led to the satisfaction of another reader', the literary critic 'can have value only in so far as the knowledge helps us formulate our own processes, helps us, that is, become aware of the form of a response we have already made or are capable of making. A critical statement is a discursive form and quite different in organisation from the ... "expressive forms" of literature: an understanding of the one cannot substitute for a response to the other. ... The principle of organisation of a critical statement is cognitive; that of a work of literature is ... affective. ... A response to a work of literature is, after all, an interaction between the work and the reader ...' (pp. 108-9). The intention of educational criticism, as Eisner presents it, would seem to include aspects of both the discursive mode of literary criticism and the expressive mode of a work of literature. What Eisner seeks to cultivate in educational criticism is the capacity of the critic to *render* 'the pervasive qualities of *this* classroom, *this* school, *this* teacher', 'to manipulate the images ... encountered in [the] mind's eye, to explore and play with alternatives that cannot be encountered in the empirical world' (Eisner, 1985, p. 8).

For Eisner, artistic perception has a key role in developing teachers' knowledge about their teaching, and Langer would probably agree: 'Above all ... art penetrates deep into personal life because in giving form to the world, it articulates human nature: sensibility, energy, passion ... More

than anything else in experience, the arts mould our actual life of feeling ... Artistic training is, therefore, the education of feeling, as our usual schooling in factual subjects, and logical skills ... is the education of thought. ... the real education of emotion is ... the tacit, personal, illuminating contact with symbols of feeling' (Langer, 1953, p. 401). Art affects the quality of life. Thus, the interpreter of educational life, the educational critic must ask: how do I know that I have understood what is going on? how can I judge the value of this piece of educational criticism?

The basic material of the literary critic is a symbolic form, to use Langer's term, whereas the educational critic works with the actual events and life of the classroom. The intention is not to present an image of what is happening in the classroom, or form of activity and feeling, as Langer would say. Because the educational critic renders his perception of what is happening in the classroom and at the same time selects what he will present, he is in fact making a comment. Educational criticism is thus both discursive and expressive. Its value lies in its ability to sharpen the perception of teachers, in its invitation to them to focus on the pervasive qualities of classroom activity, in contemplation and in discussion.

Polanyi contends that 'the mark of an intelligent personality' is 'the capacity continually to enrich and enliven its own conceptual framework by assimilating new experience', to combine an anticipation of novel and unprecedented aspects 'with a reliance on ourselves to interpret them successfully by appropriately modifying our framework of anticipation' (Polanyi, p. 103). When an event matches previous experience we merely assimilate it; but when the experience is new it must be adapted through the 'personal intervention of the speaker ... changing the rules of language to fit' the new occasion. This act of making meaning of our experiences of the world is a heuristic act and as such is 'essentially irreversible', for it involves modifying language and 'to modify our idiom is to modify the frame of reference within which we will henceforth interpret our experience; it is to modify ourselves ... in the hope of thereby achieving closer contact with reality. Indeed, any modification of an anticipatory framework ... is an irreversible, heuristic act, which transforms our ways of thinking, seeing and appreciating in the hope of attuning our understanding, perception or sensuality more closely to what is true or right' (pp. 105-6). Paradoxically, it is in the nature of an anticipatory

framework that although we may believe we have truly designated something, we nevertheless expect it to 'manifest itself in unexpected ways' (p. 116). Acknowledging this means that we allow ourselves to look for the possibilities or potentialities in our interpretation of experience. It is in modifying and enlarging our anticipatory frameworks that we develop connoisseurship.

Langer suggests that 'the emergence of meaning is always a logical intuition or insight' (Langer, p. 379). Polanyi is in firm agreement with her; he describes the 'obstacle to be overcome in solving a problem' as a 'logical gap', with the width of the gap being 'the measure of ingenuity required for solving the problem', and 'illumination' being 'the leap by which the logical gap is crossed' (Polanyi, p. 123). Every logical leap is a heuristic feat; and problem solving of a heuristic kind is a much superior class of intellectual behaviour to problem solving of a systematic, algorithmic kind. 'The interpretive framework of the educated mind is ever ready to meet novel experiences, and to deal with them in a somewhat novel manner.' (p. 124) Our capacity for making discoveries, Polanyi says, depends on natural ability, guided by intellectual effort and fostered by training; it is akin to artistic achievement, but it is not accidental or arbitrary. This kind of originality is the capacity that Stenhouse, Eisner, Schön, Smyth, Elliott and so many others, who recognise great potential in reflective practice, seek in the professional.

It is a peculiar fact that every major advance in thinking, every epoch-making new insight, springs from a new type of symbolic transformation. (Langer, 1942, p. 200)

Langer summarises for us when she says, 'All knowledge goes back to experience; we cannot know anything that bears no relation to our experience' (p. 390). Britton and Polanyi both contend that any response we make to an experience that confronts us 'will be a fuller and subtler response than anything we could put into words' (Britton, 1973, p. 276). Although we rely on the organising principle of language, 'there will always be a gap between our total response to what confronts us and any formulation we can make of what was there and what took place' (p. 277). This is commensurate with Kelly's theory of personal constructs: 'A person is not necessarily articulate [says Kelly] about the constructions he places upon his world' (quoted in Britton, p. 277). When Langer claims,

then, that 'the great cognitive value of symbols is that they may present ideas transcending the interpretant's past experience' (p. 390), she is not contradicting these ideas; rather, she is commenting on the rich store of associations that words come to have, and that in contemplating the reconstrued experience, as spectators and by means of language, we may come to understand more from the rich evocativeness of the symbols we use than we could from our mere participation in the experience.

In confirmation of the foregoing, Henderson (1989) has commented on the growing acceptance of the essential role of language in learning:

Relatively recent developments in philosophy ... have all highlighted the constructive nature of language. Concisely stated, our discourse has a formative, constitutive effect on 'reality'. Whatever we 'perceive' or 'discover', takes place through the act of language. ... Language constructions are historical and paradoxical accumulations of meaning. (p. 10)

I suggested earlier that the notion of reflective practice constitutes a paradigm shift from theoretical knowledge based on the methods of empiricist science towards the professional and practical knowledge of teachers. Henderson attributes this to 'the recognition of humans as symbol producing [involving] a shift from focusing upon what is signified to focusing upon the act of signification' (p. 12). Henderson continues:

This is a pragmatic and somewhat humbling change in perspective, for it draws attention to human rhetoric with its mysteries, virtues, and vices and not to reassuring transcendental and/or law-governed signifieds. Narratives on human nature, laws of the universe, teaching, learning, and so on are viewed as acts of fallible, historically based creatures. There are no 'meta-narratives' that decisively end all further discussion on a topic. (p. 12)

The quest for meaning is continual; this is a perpetual current in reflective practice. Maxine Greene describes it 'as engaging in multiperspective discourse'. Greene writes: 'To see perspectively ... is always to have an incomplete vision and to feel that there is always something else, something beyond the limit of one's seeing.' (quoted in Henderson, p. 12)

We have noted earlier that much of the construing of meaning that an individual engages in occurs when he is in the role of spectator, as it were,

rather than when engaged as participant in the actual experience. Experience usually does not wait for us to be ready for it so that we can contemplate it at the same time as being involved in it. While this statement seems unnecessarily obvious, it nevertheless relates to the concern, mentioned in the previous chapter, that I have with Schön's thesis. Schön's focus is on how professionals use their practical knowledge-in-action, and this is certainly a key focus of the theory of reflective practice. My concern is that he pays scant attention to reflection-on-action.

On consulting The Shorter Oxford English Dictionary, I find the definitions of the intransitive verb 'to reflect' to include 'to turn one's thoughts (back on)', 'to fix the mind or attention on or upon a subject', 'to ponder' and 'to meditate on'. Among the definitions for 'reflection' are the following: 'the action of turning (back) or fixing the thoughts on some subject; meditation, deep or serious consideration; the mode, operation, or faculty by which the mind has knowledge of itself and its operations, or by which it deals with the ideas received from sensation and perception.' Finally, meanings of the adjective 'reflective' include: 'that gives back an image; of mental faculties; of or pertaining to reflection on what is presented to the mind'.

In our earlier explorations of the theory of knowledge as 'personal construct' and of the role of language in man's symbol-making behaviour, which enables him to make sense of his experience, we paid considerable attention to the individual's capacity to construe and reconstrue experience in retrospect. It is the individual's capacity for retrospective meaning-making that enables both the exploration and interpretation of his particular experience in the broader context of his accumulated experience and that of others, and his ability to engage in prospective, speculative contemplation. The arguments of Britton, Hardy, Harding, Langer, Polanyi and others are, to my mind, undeniable. In neglecting to recognise the essential retrospective elements in reflective behaviour, in failing to take a critical perspective, Schön offers us a somewhat restricted view of the reflective practitioner, a view which overlooks its essential purposes. This is not a view shared by most other writers on reflective practice.

Reflective practitioners progressively construct their own knowledge of teaching; and there are inextricable links between their knowledge and their experience, and between their 'knowing' and 'acting' (Groundwater-Smith, 1988a, pp. 256-7). If all knowledge is essentially experiential, and teachers construct their own knowledge of teaching, it follows that their individual knowledge draws on a range of sources, which may well vary considerably from teacher to teacher. As mentioned in chapter 2, teaching is also 'a personal activity because the manner in which each teacher behaves is unique' (Nias, 1989, p. 155). Making judgements is essential to teaching, and 'judgements are ... based upon perception' (Nias, 1987, p. 138). Thus, since teaching, like learning, has a perceptual basis, each teacher's individuality, the notion of 'self', must be seen as 'a crucial element in the ways teachers themselves construe the nature of their job' (1989, p. 155), and in the meaning they make of their various teaching experiences.

The judgements teachers make, both during the processes of their teaching and when they are reflecting on them, 'depend upon how they perceive particular events, behaviours, materials, persons' (1989, p. 155). 'Perception is not a passive process', it is 'a sensory mirroring of external reality' (1987, p. 138). An individual's perceptions are determined by schemata - persistent, deep-rooted and well organised classifications of ways of perceiving, thinking and behaving which are also living and flexible - and basic assumptions which are slowly built up from birth and modified by experience (1989, p. 155). We all have different life experiences and, thus, learn to perceive the world in different ways. Our perceptions and assumptions, in turn, are significant in the development of our attitudes, values and beliefs. So teachers interpret their pupils' actions and reactions, and the information they receive about teaching, 'according to perceptual patterns unique to themselves' (1989, p. 156) and to their values and beliefs. Many aspects of teaching, including the centrality of teacher-student relationships to the educational process, impinge upon the ways teachers perceive their work and themselves. Indeed, all of an individual teacher's teaching experience is inseparably connected to his sense of personal identity; and an individual's sense of identity can be very fragile.

Pearce and Pickard put it this way: -----

When teachers engage in those activities which define teaching, they are engaging in something more than a role to be set aside at will: they are constructing themselves as *beings*. ... because teaching is a cultural process and a public activity, being a teacher is both internal self (one's own values and experiences) and external self (a comprehensible engagement with other teachers, children, parents, etc. whose views either tally with or deny aspects of one's sense of being).

... when teachers struggle with their 'public' and 'private' selves, they are seeking to establish a sense of authentic being, a sense of self which can transcend moments of conflict, contradiction or crisis. (p. 42)

If we accept, then, that a teacher's sense of self is deeply embedded in his teaching, 'it should not be surprising to us that ... [he finds] real change difficult to contemplate and accomplish' (Rudduck, 1988, p. 208). A major reason for this is that for learning to occur, perhaps involving change to a teacher's practice, 'new schemata must normally be brought into suitable relationships with old ones' (Nias, 1987, p. 139). 'In evaluating each new teaching and learning event, the principles embedded in teachers' theories are ... confirmed, refined or modified' (Anning, 1988, p. 143). 'Thus substantial modifications to a learner's perspectives may need to take place incrementally and over long periods. This is likely to be particularly the case when schemata are interrelated so that change in one involves modification to others' (Nias, 1987, p. 139).

Each teacher's knowledge, then, is 'personal, dynamic and never complete,' since teachers 'are involved in a never-ending stream of judgements which themselves are transformed as [they] are challenged by new and contradictory information. ... Professional knowledge [therefore] is not an end in itself, but the propellant which moves the knower forward to consolidate, improve, and possibly, radically change practice' (Groundwater-Smith, 1988a, pp. 256-7).

Teachers are guided by their own theories of teaching; they derive practice from theory and vice versa (Holly and McLoughlin, p. 259). However, teachers are often unaware of their professional knowledge (Holly and Walley, 1989, p. 285). Much of the knowledge teachers have about teaching is tacit, acquired over time and demonstrated in their intuitive

responses to the commonly occurring teaching situations of everyday practice. 'To teach well ... demands self knowledge and acceptance, and openness to experience' (p. 285). 'Teaching and learning, and theory and practice, are dialectical - each reciprocally influences the other' (p. 289) - 'discontinuous and dynamic processes' (Holly and Mcloughlin, p. 260).

Holly and Mcloughlin make a useful distinction between public and private theories. Public theories are described as 'systematically developed and publicly known conceptual schemes for interpreting phenomena', whereas 'private theories are [teachers'] ... own personal explanations and conceptual systems for making sense of experience', and 'incorporate those aspects of public theories that [they] find useful to [their] teaching' (p. 260). Hence teachers function from their 'own evolving personal, professional, theoretical bases' - their own personally constructed knowledge bases - acting on schemata which are constantly being modified by their actions and their reflections upon those actions. This is what Stenhouse and Elliott seem to be implying when they speak of teachers' professional knowledge.

'With time and support to focus on teaching and schooling, teachers can gain deeper appreciation of significant aspects of practice. It means bringing to a conscious level much of what is already known. Becoming active critics, enabling others to understand more of the complexities of educational processes ... is a challenge' (Holly and Walley, p. 287). It is the challenge of being a reflective practitioner, and it means that teachers need to make their theories explicit. 'Reflection on practice brings to awareness the hidden dimensions of teaching and learning' (Holly and Mcloughlin, p. 259). It 'involves clarifying, thinking and identifying underlying assumptions and beliefs and recognising motives and behaviour' (Holly and Walley, p. 293). The more teachers learn about teaching, of their 'theories in use', the more articulate they become about the 'why' of what they do. The more they focus on and document teaching, the more visible is progress and the more explicit are their theories (p.289). 'As teachers gain awareness and confidence through theorising they can engage in dialogue that helps to generate a shared culture of teaching. Integrating knowledge of self, and knowledge of practice contributes to praxis, a dynamic state of personal and public knowledge in evolution' (Holly and Mcloughlin, p. 261), or 'informed committed action' (Kemmis, 1987, p. 75).

Elliott, as we have seen, contends that reflective practice 'constitutes the dialectical process of generating practice from theory, and theory from practice' (p. 256). He suggests that the development of teachers' professional practice is enhanced enormously by procedures which enable the development of shared knowledge and insight, because it involves individuals in using their collective professional wisdom to guide their judgements and in contributing what they learn from retrospective appraisals of such judgements.

According to Smyth (1989):

Where teaching is conceived as a static process of transmitting accepted bodies of knowledge, and where the 'ends' of teaching are artificially divorced from the 'means', it is likely that there will continue to be problems of how to translate somebody else's theory into practice. Rather than theory being something that is 'put into practice' with practice subservient to theory, the view expressed here dismisses the unnatural separation of ends from means, and focuses instead on how deliberative and reflective processes may be used to create understandings that change practice. By using concrete and practical experience with all its frustrations and contradictions as the basis upon which to theorise, teachers become agents in the creation of their own structures of knowledge in regard to a range of matters, including subject matter and curricular content, classroom organisation, the strengths and weaknesses in their teaching, the interests and needs of students, as well as the social and political circumstances of their work. (pp. 227-8)

When teachers are both constructing their theories and putting them into practice, as Smyth and others have described, they can be said to fit the role of the professional according to the way Elliott conceived it in chapter 3. On these grounds, says Bell (1988), 'it follows that teaching itself needs to be put on a practitioner research basis' (p. 42).

Hopkins (1987) describes teacher research as engaging teachers in systematic inquiry, in 'self-consciously and systematically researching their own teaching for the purpose of improving classroom practice' (p. 111). Hopkins alludes to the heuristic nature of the activity and comments on the legitimacy of teachers' 'often hesitant attempts' at research.

Unfortunately, one can characterise teaching ... as being a form of alienated labour with teachers comprising a sub-group lacking in professional autonomy, denied control over their form of work and relegated to a purely instrumental role. It is unsurprising therefore if the image of the teacher researcher is unfamiliar, for as a concept teacher research embodies features that value responsibility, critical reflection, and the exercise of professional judgement. These characteristics reflect on the individual teacher's ability to be, in Stenhouse's phrase, 'autonomous in professional judgement'. In this scenario, a major factor becomes the teacher's ability to theorise about practice and to think systematically about what he or she is doing. Central to this activity is the self-conscious reflection upon classroom experience, to understand it and to create meaning out of that understanding. (p. 112)

Hopkins describes teacher research as 'an act undertaken by teachers either to improve their own or a colleague's teaching or to test the assumptions of educational theory in practice' (p. 115). From their experience of teaching and from their classroom research, teachers generate hypotheses about teaching which they test through further research. Classroom research thus encourages teachers 'to make their teaching more competent.' Hopkins envisages teacher researchers as 'teachers who have extended their role to include critical reflection upon their craft with the aim of improving it.' He suggests that 'in order to make sense of educational research teachers may have to adopt an experimental attitude towards their teaching. By doing this, they are taking on an educational idea cast in the form of a curriculum proposal and testing it out within their classrooms' (pp. 115-6). Hopkins thus recalls Stenhouse's concept of teacher as researcher, whereby the curriculum proposal is no more than a provisional specification 'worth putting to the test of practice' (Stenhouse, 1975, p. 142).

Groundwater-Smith (1988a) contends that as well as the premises 'that knowledge is a personal invention' (p. 256) and that 'there is an inextricable link between "knowing" and "acting"', a third major assumption, upon which the teacher researcher concept is predicated, is 'explicit in the work of some [advocates] but not of others. This assumption is that action, to be worthwhile, must carry within it the seeds of emancipation. That is to say, there should be a continuous, relentless interrogation of sedimented social practices with the intention of changing those which result in inequality and injustice. Emancipation is seen as a

moral imperative (p. 257). The concept of emancipation is attributed to Stenhouse. Hopkins describes Stenhouse's concept of emancipation, as a concept that 'underpins the teacher researcher ethic', and as 'the process involved in liberating teachers from a system of education that denies individual dignity by returning to them some degree of self-worth through the exercise of professional judgement. And that is what happens when one engages in teacher research - it is a radical approach to teaching' (p. 126).

Hopkins continues:

By virtue of being a teacher researcher ... one is inevitably making a political statement. Political in the sense that the individual is supporting a method of teaching that is emancipatory and runs counter to the normative order. (p. 257)

Kemmis takes up Stenhouse's thesis when he argues:

To reflect critically is to locate oneself in an action frame, to locate oneself in the history of a situation, to participate in a social activity and to take sides on issues. ...

In the educational context, this implies explicitly, consciously and self-consciously, exploring the social and historical nature of our relationships as actors in the educational process with the social institutions of education, and exploring the social and historical nature of the relationships between educational thought (our own, and in tradition) and action. It is especially important to note that these relationships are not merely abstract: they are realised in practice. (Kemmis, p. 75)

This is what Kemmis means when he describes praxis as 'informed, committed action'. Praxis, which 'links thought and action', is 'by definition, reflective', and it is 'inherently social and political' (p. 76). And knowledge, in the 'emancipatory sense', says Groundwater-Smith, 'functions to free the knower from taken for granted constraints. Knowledge is not only intensely personal but also morally purposeful. Knowledge, then, in these terms, is not some sort of portable self-contained thing which may be transmitted by technically controlled conduits or by reference to the wisdom of self-declared authorities, but is personally constructed and itself located in sociohistorical space, and is the

basis for prudent and constructive action' (Groundwater-Smith, 1988a, p. 258).

For Smyth (1987b and 1989), reconceptualising teaching as 'a form of intellectual labour amounts to permitting and encouraging teachers to question critically their understandings of society, schooling and pedagogy' (1987b, p. 155). 'The concept of teacher as intellectual carries with it the political and ethical imperative to judge, critique and reject those approaches to authority that reinforce a technical and social division of labour that silences and disempowers both teachers and students' (Giroux and McLaren, quoted in Smyth, 1987b, p. 157). In seeking to intellectualise the work of teachers, Smyth is claiming that teachers need to assume actively the responsibility for theory making (and theory testing) or accept the fact that these will be made for teachers by academic researchers and others only too willing to assume that task (Smyth, 1989, p. 221). The assumption is that:

through assisting people to understand themselves and their world it becomes possible for them to engage in the radical changes necessary for them to overcome the oppressive conditions that characterise their work patterns and social relationships. Knowledge ... becomes a means through which people are able to arrive at self-understanding and an awareness of the debilitating circumstances of their lives. Even more important, knowledge becomes the means by which people are able to identify the social and institutional constraints that make their teaching lives less than satisfying. Knowledge as a form of power emerges from and helps to sustain certain social conditions, but it also takes on a dialectical relationship in contributing towards changing the social structure that spawned it. (Smyth, 1989, p. 221)

Within the concept of emancipatory teacher research, therefore, 'lies the potential for transformation. ... Emancipation has the potential for changing human behaviour and structures - from the bottom up' (Hopkins, p. 126).

For Berlak and Berlak (1987) there is a distinction between critical thought and empowerment. Critical thought, as they conceive it, 'is the process of freeing oneself from dependence upon taken-for-granted ways of viewing and acting in the world and seriously entertaining and evaluating alternative possibilities' (p. 169). The notion of empowerment 'goes

beyond critical thought'. It 'implies contributing to the shaping of society', thus including 'a readiness to act with others to bring about the social conditions that one has chosen through a process of collaborative, critical inquiry. Action requires courage, but it also requires the possession of knowledge and skills necessary to change the situation - a classroom, school, or any other arena of human activity.' (p. 170)

It is clear that 'a critical pedagogy of schooling goes considerably beyond a reflective approach to teaching' (Smyth, 1987b, p. 159). Schön's conception of reflection-in-action within the context of complexity, uncertainty and instability might be seen to be at one end of a spectrum of reflectivity. At the other end is the conception of reflectivity as depicted in the ideas of critical pedagogy, teacher empowerment and emancipation. At this end of the spectrum reflectivity incorporates social and political theory as being an insistent consequence of the democratisation of knowledge. Between these two poles is an area that Grimmett et al. (p. 7 and fig. 1) entitle 'hermeneutic pedagogy'. 'Hermeneutic inquiry invokes a venerable tradition of interpretation', has come to imply a focus on interpreting 'lived experience' (Schubert, p. 28), and 'involves questioning received wisdom and notions of common sense' as well as 'openness to wonder, mystery and the unknown, the barely speakable' (Beyer, p. 28).

Hermeneutic inquiry and critical pedagogy are the outcomes of attempts to counter the tendencies of the Positivist empirical paradigm. 'Whereas the empirical-analytic paradigm posits principles of control and certainty, hermeneutic inquiry seeks understanding and communicative interaction; and critical inquiry assumes the necessity of transformative action based on ideological critique' (Schubert, p. 30). For Schubert, hermeneutic and critical inquiry alike imply 'focusing sensitively upon meaning revealed in the language used to speak about teaching and teacher education ... Hermeneutic inquiry serves practical interests and proceeds by an interactive form of social organisation; critical inquiry serves emancipatory interests and is organised socially through empowerment and its consequences in action' (p. 31).

Although I find myself socially and politically attracted to the perspectives and possibilities of critical pedagogy, I am inclined to the view that inculcating processes of hermeneutic inquiry into professional

development may be a more realistic goal in the first instance, than an essay into critical pedagogy. Like Gitlin and Smyth, my concern is to help teachers to raise their consciousness with regard to particular issues of teaching, such as 'why the particular content is being taught, how it might be dealt with differently, as well as how and why particular teaching strategies are being pursued, and with what expected effect' (Gitlin and Smyth, p. 119). However, we may need to heed the warning of Bullough (1989), who suggests that because issues relating to equality and justice are likely to be more important than technical problems of teaching, 'reflectivity necessarily needs to be grounded in a social ideal', since a social vision is essential for judging the ethical desirability of proposed solutions to problems (p. 16). Hermeneutic inquiry, on this analysis, necessarily moves along the spectrum towards critical pedagogy.

The challenge is to assist teachers to engage in systematic, self-reflective inquiry, so that 'they may take on the role of powerful "intellectuals" rather than being merely "minor technicians" ...' (Smyth, quoted in Rudduck, p. 213).

Chapter 6

Assisting Teachers to become Reflective Practitioners: Some Implications for Professional Development

But what if teachers, recognising the uncertainty in their work, raised their voices instead of growing silent? And what if theorists recognised that intimate knowledge of this uncertainty was exactly what was missing from both their theories and the policies these theories provoke?

Joseph P. McDonald (1986)

The boundary between imagination and reality, and the boundary between being a child and being an adult, are border country, a passionate place in which to work.

John Gordon (1975)

I began this study by attempting to find ways of describing the activity of teaching. My intention was to set a context for considering the kind of professional development activity that is most likely to support and enhance teaching. Chapter 2 provides a brief survey of past practices in professional development and notes their failure, in general, to bring about change in teachers' practice, not only because they have tended to ignore the cultural dimensions of teaching but also because they are incompatible with the complexity and uncertainty of the teaching and learning process. In chapter 3 I set out to explore a range of models of teaching, in an endeavour to find a way of conceiving teaching adequate to its essential nature; from my exploration emerged the conception of teacher as researcher, as systematic inquirer, and of teaching as the reflective practice of a professional ethic. My next task was to pursue this conception of teacher as researcher, as reflective practitioner, so that the ideas of Stenhouse and Schön along with Eisner's artistic approaches to evaluation became the subject of chapter 4.

Fundamentally, Stenhouse, Schön and Eisner are each concerned with the issue of how professionals make sense of their world of work. They see teachers as constructors of their own knowledge and it is this theory of knowledge as personal construct that brings coherence to their work, and, indeed, to our understanding of reflective practice. Thus, in chapter 5, I sought to develop an epistemology of reflective practice, and in this

endeavour I turned for assistance to theories of language development and aesthetics to explore how we make meaning of our experience, to construct knowledge of our world. We learned that reflective practitioners progressively construct their own knowledge of teaching, that the sources of their knowledge are many and varied, and that they derive practice from theory, and theory from practice. Reflective practitioners are actively and systematically self-critical.

My task in this chapter is to explore the implications for professional development of what we understand of the concept of the reflective practitioner or teacher researcher (terms which seem to be used interchangeably). What is the contribution of the theory of reflective practice to ways in which professional development can assist teachers' learning? How can teachers be encouraged, assisted and supported, through the structures and processes of professional development, to engage in systematic, self-critical inquiry and hence to become researchers into their own practice?

I have chosen to use the term 'professional development', rather than 'staff development' or 'in-service education', to indicate that my focus is on the teacher's professional learning, or learning that supports the work of the teacher. The intention is to take account of the contribution of Fullan (1987), who equates staff development with learning. (p. 214) Secondly, the selection of 'professional' explicitly recalls Elliott's (1989) concept of teaching as 'the competent practice of a professional ethic' (p. 249), Stenhouse's (1975) concern to promote 'the professionalism of the teacher' (p. 24), and Schön's (1983) notion that the competent practice of professionals is determined by their capacity for reflection. In declining to use the term 'staff development', I make no denial of the contextual nature of teaching: most teachers, of course, are members of the staff of an educational institution. Moreover, the collegiality of teaching is an important consideration in the professional development of teachers, and one which I intend to pursue. To the extent that teachers' practice of their profession is conducted within institutions, and to the extent that teachers are normatively bound by the practices, structures and expectations of their institutions, all professional development must take something of an institutional perspective. However, if one accepts the contention that knowledge is a personal construction or invention, one presumes that the

professional development of teachers will be directed towards teachers as individuals, individual teachers who teach and learn alongside their colleagues in educational institutions.

Teaching intends to engender learning, to establish the predisposition for learning to occur. It follows, then, that teachers need to contemplate how their students learn. Teachers, themselves, are their own primary examples of learners; they should be encouraged to be aware of and to reflect on their own learning, therefore, and to consider the richness and complexity of their learning. From such reflection teachers will gain insights that can be applied and tested in practice. In their learning about teaching, my contention is that it is their research, their systematic inquiry into their own teaching that provides the major source of teachers' learning about their practice, and about how they can make changes to it. Their learning is about both the processes of their teaching and the effects of those processes on what their students do in the classroom. On one level they are learning about teaching; on another, 'meta'-level they learn about their own learning, and this learning they can apply to their understanding of their teaching.

Groundwater-Smith (1988a) provides an interpretation of learning as a process of construction, which encapsulates some of the ideas introduced in the previous chapter:

... knowledge is a personal invention. ... for knowledge to be truly authentic it requires the knower more than merely to assimilate the information which is available to him or her. A positive act of construction is required whereby the knower tests the information against the yardstick of personal experience. (p. 256)

'Knowledge is a personal invention', the first part of Groundwater-Smith's comment recalls my assertion that the notion of knowledge as personal construction is essential to the conception of reflective practice, and supports my attempt to explore this notion as a theory of learning, including the way we symbolise experience in order to interpret and create meaning. 'Learning,' says Rowland (1988), too, 'is not only the result of what we do, but also of how we give meaning to what we have done' (p. 63). And Woods (1987) contends that for a shared knowledge-base to be more central to teachers' concerns, firstly, 'teachers' knowledge must be

theirs' (p. 122). By this he means that teachers' knowledge should be 'built up ... through a process of identification, internalisation, reinterpretation, discovery and recognition of the need for new information or skills. ... "Reinterpretation" is central here as the learner incorporates knowledge within her own life world and refashions its form and expression to match those particular parameters.' Woods' second contention is that:

a new conception of knowledge is required ... a living, experiential, processual, flexible, creative compilation of insights, memories, information, associations, articulations that go into resourcing on-the-spot teacher decision-making and action. It will include the ambiguities, inconsistencies, contradictions of life; what to some outsiders may appear to be trivia, but what to teachers are of the utmost importance; and, as well as empirical and observable facts, the emotions and the subjective. It will also include the skill of 'orchestration' - a kind of practical theorising whereby the teacher blends actions together into a harmonious whole'. (pp. 122-3)

Let us pursue for a while the ideas contained in the comment, quoted above, from Groundwater-Smith (p. 256), since they are helpful to my task of applying the theory of reflective practice to the professional development of teachers. 'For knowledge to be truly authentic,' she says, '... a positive act of construction is required whereby the knower tests the information against the yardstick of personal experience' (p. 256). For an 'act of construction' to be 'positive', what seems to be implied is that the process of constructing knowledge, the personal act of making meaning must be conscious, deliberate and purposeful. I recall Stenhouse's concept of the extended professional. Rather than the unreflective practitioner that Schön describes, who responds to professional problems in a routinised, intuitive manner, 'a positive act of construction' is performed by the teacher who, as an autonomous learner, can engage both in reflection-in-action and in the systematic study of his and others' teaching. In Elliott's (1989) terms 'a positive act of construction' would also involve 'individuals using the collective wisdom of their professional group' to develop 'a reflective distillation of shared insights: a shared stock of professional knowledge to support future deliberation and practice' (p. 257), thus signifying the autonomous professional who can engage collaboratively. Rudduck (1987) equates such an act of learning to 'critical reflection on practice and focused professional dialogue' through which 'the understandings implicit in teachers' intuitiveness and experience can

be transformed into educational knowledge' (p. 129). Smyth would add, I suspect, that for teachers to engage in 'focused professional dialogue', there is a need to develop 'a language for talking about teaching' (1989, p. 221), 'a grammar for examining their pedagogy in increasingly critical ways' (p. 222), so that they can then begin 'a dialogue with one another so as to penetrate the habitual taken-for-grantedness of their classroom practice and [develop] robust theories about their teaching' (p. 223).

To return to our exploration of Groundwater-Smith's comment, we assimilate information from wherever it is available, either directly from experience, as sensory, first hand information or as received, vicarious information; but, as Langer (1953) points out, 'we cannot know anything that bears no relation to our experience' (p. 390). Nor do we always avail ourselves of the information present; what information we select as the focus of our attention depends in large measure on previous experience, prior knowledge, our own ways of perceiving the world, our predispositions, attitudes and beliefs. Information is not knowledge until it is reinterpreted and internalised, to use Woods' terms, or until it is tested 'against the yardstick of personal experience', in both the physical and the imaginative worlds.

Definitions provided by The Shorter Oxford English Dictionary for the word 'test', and which are appropriate to our particular task are: 'that by which the existence, quality or genuineness of anything is or may be determined'; and 'that by which the beliefs or opinions ... are tested or tried'. A 'yardstick', we are told, is 'a standard of comparison'. These words convey notions of quality and rigour. For knowledge to be authenticated, hasty and unreflective practices simply will not do. It is only by means of careful, systematic, rigorously interrogated evaluation procedures, measuring against the standard of comparison of experience, in the light of what is already known, that the teacher comes to reinterpret information, assimilating it as personal knowledge. The validity of the individual's own experience and personal knowledge is asserted by both Polanyi (1958) and Rowland (1988, p. 60), and is strongly implicit in Eisner's notion of teachers as connoisseurs. But to be connoisseurs and critics of teaching and learning, 'teachers must be given support to focus on their work. They need time and conditions conducive to reflection in

order to consider practice and the meanings of teaching (Holly and Mcloughlin, 1989, p. 261).

Stenhouse says that we test ideas by means of classroom research procedures. Testing information against 'the yardstick of personal experience' is the focus of critical inquiry. It is a heuristic activity, 'research undertaken by teachers' (Hopkins, p. 112), self-conscious and systematic inquiry of their own teaching for the purpose of improving it. Yet the contrast is made with 'the inadequacy of traditional educational research to help the classroom teacher improve his or her own practice' (p. 114). For one thing, says Hopkins, 'teachers and researchers do not construe teaching in the same way' (p. 115), researchers' perspectives on teaching usually being 'derived from academic disciplines', whereas teachers derive their knowledge of teaching from continual participation in situational decision-making and the classroom culture in which they and their pupils act out their daily lives (p. 114). For another thing, testing is not to do 'with mean scores from the class or school, yet the [ubiquitous] agricultural-botany model is premised on measures of gross yield', thus having 'severe limitations as a method of making sense of classroom reality' (p. 115). Finally, the 'interactions which result in effective learning are not so much the consequence of a standardised teaching approach, but the result of teachers and pupils engaging in meaningful action. And meaningful action cannot be standardised by control or sample' (p. 115). Thus the implication is that 'the knower tests the information', not by means of traditional empirical research, but through heuristic and hermeneutic approaches, measuring the information against the yardstick of personal experience.

'Classroom research generates hypotheses about teaching from the experience of teaching and encourages teachers to use this research to make their teaching more competent' (Hopkins, p. 115). It encourages them to 'adopt an experimental attitude towards their teaching ... taking an educational idea cast in the form of a curriculum proposal and testing it within their classrooms' (p. 116). Teachers are 'active creators and users of practical knowledge about their own teaching' (Smyth, 1989, p. 227). And as we saw in the previous chapter, the process of constructing one's knowledge can be compared with the scientist's method of inquiry: formulating hypotheses on the basis of observation, testing to see what

actually happens, reformulating hypotheses, retesting, generalising, and so on. As teachers' hypotheses, or teaching ideas are successively put to the test of classroom experience, so their construction systems undergo a progressive evolution. Their knowledge of teaching, then, is validated pragmatically, at the same time as they seek to enhance their understanding of their practice and experience in classrooms. Theory and practice are in a dialectical relationship, each acting on information from the other and adjusting accordingly. Thus the focus of teachers' classroom research is on 'how deliberative and reflective processes may be used to create understandings that change practice' (Smyth, 1989, p. 228).

Stenhouse has suggested that the testing is conducted in 'the laboratory of the classroom', a place for conducting observation, experiment and examination. Rubin (1987) describes the classroom as providing 'the natural setting where teachers can study the educational process within the parameters of curriculum. ... [where they can] practise reflective teaching so as to learn more about the pedagogical arts. Such study, it goes without saying, is, in itself, a high form of staff development' (pp. 178-9). Conceiving the classroom as a laboratory encourages, in Blackman's (1989) words, 'a constant re-examination of how well we're doing and whether we're doing what we aim to be doing' (p. 7).- It encourages teachers to become members of a scientific community, whose characteristic behaviour is evaluative, searching, and for whom questioning is central, a powerful force for learning.

I wish to return once more to the comment from Groundwater-Smith: what, then, is authentic knowledge? It is personal knowledge, knowledge that has been validated pragmatically and which is meaningful in terms of personal experience of teaching and learning. What is implied is not static, scientifically formulated knowledge to be applied instrumentally, rather knowledge which may be tentative, problematic and artistically derived, and which 'reflects reality in process, in transformation' (Smyth, 1987b, p. 163). In addition, to be deemed 'authentic', knowledge which operates at a tacit and functional level, and understandings which are 'implicit in teachers' intuitiveness and experience' must be 'transformed into [explicit] educational knowledge through critical reflection on practice and focused professional dialogue' (Rudduck, 1987, p. 129). Since it 'involves clarifying, thinking and identifying underlying assumptions and beliefs

and recognising motives and behaviour', teacher research acts as a vehicle for achieving such transformation. 'Most importantly, it helps to translate implicit theories into a format which can be pondered alone and with others' (Holly and Walley, 1989, p. 293).

We make meaning through the process of articulation - what Britton calls 'shaping at the point of utterance' (quoted in Miller, 1987, p. 202) - and call upon the 'symbolic resources' of our culture 'for the development of understanding' (Winter, 1988, p. 234). The crucial point here is that the process of articulation is an essential means of ensuring that knowledge does not remain tacit and intuitive, or that the approach to learning penetrates deeper than the surface, so that meaningful connections are made with teachers' previous knowledge and experience 'in an active and critical way' (Whittaker, 1988, p. 212). Both talking and writing are implied. We learn from others, and we learn from sharing our experiences and understandings with others. Nias points out that 'the individual and subjective nature of perception makes it difficult for us to share our basic assumptions with others' (Nias, 1987, p. 139); and often we do not know what our basic assumptions are. But the process of exploring and explaining to colleagues assists the speaker to reveal meaning to himself and to reach new understanding. Moreover, 'the act of writing is always self-exploratory, i.e. "reflexive"' (Winter, p. 237).

Teaching is a fundamentally social institution and the need to break down teacher isolation, as mentioned in chapter 2, is a widely held concern. Little (1990) cautions us, however; she writes of 'the persistence of privacy' (p. 509), contending that the organisation and traditions of teaching 'buttress [it] as a private endeavour' (p. 530), and she is, therefore, skeptical of the quality of educational change that can be achieved through teachers' contrived collaboration. But others believe that encouraging collegial and collaborative processes for the support of teachers' systematic and self-critical inquiry, not only assists teachers to gain understanding and control of their knowledge. It also provides a positive strategy for eroding the isolation of the teachers and commences the process of 'developing a language for talking about teaching' (Smyth, 1989, p. 221). In addition, as social beings, teachers seek the support and approval of their colleagues, particularly where they are exploring 'uncharted territories'. As well as being explicit, articulated and validated by experience, authentic

knowledge, then, also carries the implication of approval by one's colleagues.

There is an implication, too, that knowledge that is truly authentic, is knowledge that has been verified in terms of 'doing purposeful things' (Pearce and Pickard, 1987, p. 42), thus invoking not only that teachers need 'actively to assume responsibility for theory making' (Smyth, 1987b, p 155), but also the professional responsibility associated with being a teacher. Teacher researchers 'have extended their role to include critical reflection upon their craft with the aim of improving it' (Hopkins, p. 116), and consequently are able to take 'more control over, their professional lives. This attitude is ... at the basis of any significant reform' (p. 127). 'Conducting their own action research within supportive and intellectually robust environments, engages and empowers teachers. It enables them to know what they know, how they know it, and to extend it' (Holly and Mcloughlin, 1989, p. 261).

Smyth contends that 'if teachers are to enhance their pedagogy, then it will be as a result of *less*, not *more*, technical control over teaching by agencies outside of classrooms. This amounts to a call for the restoration of the "intellectual" within teachers' work' (Smyth, 1989, pp. 228-9), and therefore, to construing teachers' work as a form of intellectual labour. Drawing on the work of Kohl, Smyth describes the intellectual as:

a person who knows about his or her field, has a wide breadth of knowledge about other aspects of the world, who uses experience to develop theory and questions theory on the basis of further experience.' Indeed, this integration of 'thinking' and 'doing' characterised by a willingness to open one's practices to critical self-scrutiny is only a precondition; it is the preparedness to engage in reasoned moral action by transcending the means and questioning the ends, that is the real hallmark of an intellectual. ... 'An intellectual is also someone *who has the courage to question authority and who refuses to act counter to his/her experience and judgement.*' ... To construe the nature of teachers' work as a form of intellectual labour is, therefore, to permit and encourage teachers critically to question their understandings of society, schooling, and pedagogy. (p. 229)

'Investing people with the capacity to ascertain the facts for themselves and hence to develop critical awareness and a basis for radical change' (p.

222), or in other words, 'empowerment', occurs 'through the development of critical awareness; through the development of networks of critical learning communities ... where people can think freely about their problems - and redefine their problems in the light of growing experience and understanding' (quoting Kemmis, p. 225). Teachers working in their 'learning communities' will only become 'truly empowered' when they are 'assisted to pursue and ask *why* questions rather than being contented with *how to* questions (p. 226). Thus through the processes of critical pedagogy, 'a situation of independence' (p. 221) is created, where teachers become active inquirers into their own and others' teaching, exerting 'their political and social prowess in developing the potential to engage with and transform the dominant theoretical traditions' (p. 230).

Smyth contends further that reconceptualising the work of the teacher as a form of intellectual labour is to transform 'administrative thinking about schooling, teachers and students' (p. 233), and to reprofessionalise teaching. 'Professionalisation involves not only the status and compensation accorded to the members of an occupation: it involves the extent to which members of that occupation maintain control over the content of their work, and the degree to which society values the work of that occupation' (p. 233). Moreover, the concept of the intellectual can become 'the basis for interrogating the specific ideological and economic conditions under which intellectuals as a group need to work in order to function as critical, creative human beings' (Smyth, 1987b, quoting Giroux, p. 166).

Yet, as we have seen, 'educational theory and practice have long been dominated by dependency on [scientifically derived] knowledge as authority'. Customarily little has been expected of teachers in terms of contributing to 'a critique of this body of expert opinion', so that 'a structure of communication has arisen which largely excludes them. In this way teachers have been disenfranchised from knowledge of their own practice' (Bell, 1988, p. 42). Much of teaching is beset, too, by 'the predictability of routine' (Gitlin and Smyth, 1989, p. 127). 'The cycles of routine that the rhythms of institutional life seem to require inevitably lead practitioners to reconstruct each day in its own image, making it difficult to step back, and to look, even briefly, with the eyes of the

stranger. They see what they expect to see. ... [There is a] need to make the familiar strange ...' (Rudduck, 1989, p. 206). 'Immersion in the world of routine practice can tend over time to reduce the capacity of the practitioner both to contemplate alternative courses of action and to continue to gain insight from everyday events. As insight goes, so some of the intellectual excitement of teaching goes too' (Rudduck, 1987, p. 130). And there is nothing that teaching is more vulnerable to than 'the flattening effect of habit' (Rudduck, quoted in Gitlin and Smyth, p. 127).

... how rarely teachers speak to one another about professional aspects of their work. They do not as a rule talk about teaching methods. Each is sealed in a classroom and guards the privacy of life in it. Students know much more about a teacher than colleagues of many years standing ... (White, R. T., quoted in Nias and Groundwater-Smith, introductory section, p. 135)

This is the malaise of professionals, as Schön identified it, their tendency to encounter the same situations again and again, so that in the everyday familiarity of events, their capacity for surprise eventually succumbs to dull routine and predictability. There are, of course, other factors, which mitigate against teachers' becoming 'active critics'. Holly and Walley (1989) cite two: 'Neither the cellular organisation of the school, nor the history of women in education lends support for such advocacy. Teachers have always remained isolated from one another, and women, who have always outnumbered men in teaching, rarely have been in leadership positions to express and assert their professional opinions in public forums' (p. 287). How, then, can teachers be assisted to change the mode of their everyday routine practices? How can their thinking be opened to the insights that are the products of reflection and inquiry? How can an educational environment be developed which promotes questions, reflection and collegial discussions on matters of consequence to teachers?

The role of language provides a key. 'If schools are to be inquiring kinds of places, then the values espoused and the activities pursued will be as a consequence of dialogue about the nature of schooling and what is considered important in the development of children, and not as a result of bureaucratic or autocratic decree' (Smyth, 1989, pp. 221-2). Teachers must be 'articulate about the nature the nature of their work' (Smyth, 1987b, p. 162). They need to 'begin to shatter the structured silence surrounding their teaching' (Smyth, 1989, p. 234). The conversations of

the corridors, of the staffrooms, of teachers centres, of any venues where teachers might talk, need to become the conversations of teachers talking and thinking with one another about their classroom experiences, of teachers 'questioning received wisdom and notions of common sense', being open 'to wonder, mystery and the unknown, the barely speakable' (Beyer, 1987, p. 28), and of teachers 'extraordinarily re-experiencing the ordinary' (Shor, quoted in Smyth, 1989, p. 227).

Encouraging teachers to take a stance of inquiry towards their teaching implies the establishment of 'collaborative critical communities' (Groundwater-Smith, p. 259). Language, as we have recognised, has an essential role in giving meaning to experience and in the creation of knowledge. Smyth (1984) affirms for us that 'when teachers are provided with support and assistance, they talk with each other about their work frequently, continuously and in increasingly precise ways.' Through their talk, therefore, they are 'able to build up an adequate language for describing and making sense of their classroom teaching. Developing this coherent and shared language is predicated on a willingness by teachers to observe, record and discuss aspects of [their own and] each other's teaching in practical ways. ... teachers' conversations, based upon their observations of teaching, constitute a valued and enlightening form of professional development' (p. 21).

Nias (1987) reminds us of the vital role of groups in providing support for their members: 'individuals find it easier to sustain a perception or opinion if they have the support in [the group] of at least one other person' (p. 140). Group discussion among peers is 'a powerful means of exposing people to different viewpoints, of encouraging them to lay out their basic assumptions for comparison with others and of supporting them through personal change' (p. 142).

However, ... to be fully effective as a change agent, such a group needs to have certain characteristics. It must be big enough to provide a diversity of views but small enough to allow everyone to be heard. Members must be mutually supportive, but ready to encourage challenge and tolerate disagreement, even conflict. They must be willing to accept responsibility for their own ideas, imaginings and actions and to work through any changes in these that they may wish to make. Their relationship must be as egalitarian as possible, though the group is likely to have a leader

who is willing to use his/her authority to protect and encourage the free expression of views. The group will be long enough in existence and meet sufficiently often for challenge and change to take place.

Unfortunately, neither teaching as an occupation nor schools as institutions favour the development of such groups. (p. 142)

Moreover, a multiplicity of factors conspires to prevent a climate conducive to a 'genuine exchange of views on educational issues, especially within [teachers'] own schools' (p. 143). For example, teachers are not good at listening and are always short of time, 'teacher education has lacked a tradition of debating philosophical differences or educational priorities', and 'potential conflict in school staffrooms tends to be treated as a pathological symptom rather than as a naturally occurring phenomenon, the resolution of which can lead to personal and collective growth' (p. 143). In sum, 'occupational and organisational characteristics seem sufficiently deep-rooted and pervasive to ensure that teachers are seldom exposed to fundamental challenge from their colleagues' (p. 144).

What emerges is that the culture and organisational structure of education and schools do not naturally provide for the establishment of challenging, stimulating and perhaps provocative groups, that support teachers' inquiry into their teaching and educational issues. However, Nias says that 'teachers do find ... ways of creating groups which present them with alternative ways of perceiving themselves and their environments and support them during the processes of experiment and change' (p. 137). And, like Smyth, she finds 'evidence to suggest that practical and theoretical developments which encourage teachers to discuss their differences in supportive and egalitarian groups could be a powerful tool in the modification and propagation of new kinds of professional knowledge' (p. 150). Rubin adds to this advice with three points: first, that professional development efforts must take account of the fact that 'opportunities for experimentation, collegiality and ideas exchange are psychologically re-inforcing; second, the logical assumption that teachers have personal convictions which cannot be ignored; and third, the oft-cited observations that teachers are inspired to high performance mainly by desire to help students' (p. 179). The challenge, then, is to develop group processes that can act as a catalyst in encouraging and assisting

teachers to probe beneath their accepted and unquestioned practices and to engage in rigorous inquiry and systematic, critical reflection.

'Conscious efforts' on the part of teachers, 'to get to know one another', says Blackman (1989), 'can be as beneficial as they are simple. Finding and taking the time to share is a beginning' (p. 8). But open dialogue is not an end in itself, rather 'a means by which colleagues can think with one another about practice. The quality of professional development is determined, in large measure, by the nature of the questions being addressed and by the resources drawn upon to address these questions.' (p. 9)

Day (1987) describes an approach to professional development intended to support teachers in becoming inquirers into their own practice, and which holds that 'research is integral to learning about practice' (p. 211). It implies 'a recognition that the quality of the teacher's reflective framework is a decisive factor in his development, and that opportunities for the growth of clarity and awareness of one's own thinking and behaviour must therefore be built' (p. 211) into the professional development structures. In Day's approach, and with reference to Eisner, teachers are considered not only as connoisseurs, or potential connoisseurs, able to recognise and appreciate what is significant in teaching and learning, but also as critics, able to disclose the qualities perceived through connoisseurship. Peer support, he suggests, strengthens individual acts of connoisseurship.

Day refers to the work of Argyris and Schön, which contrasts 'single loop learning', in which theory is formulated in private and is unlikely to 'again be significantly questioned', with 'double loop learning', in which theory-making and theory-testing are made public as well as conducted in private, and therefore, will have increased effectiveness (pp. 213-4). When hitherto implicit and thus unchallenged thinking is made explicit in learning networks or communities, teachers are engaging in self-confrontation. (pp. 211-2) Hence, as well as regular opportunities for private and public reflection, teachers need both moral and intellectual support. Day also notes the importance of the teachers' inquiry being school-focused (rather than purely school-based with the associated problem of parochialism), since teachers value the work if they perceive it

'as having direct and tangible practical benefits for themselves and their schools'. (pp. 214-5)

Merely establishing critical learning communities may not be sufficient to enable teachers to gain insight into and come to understand both their teaching and the larger contexts within which they teach. There is a need for those leading professional development programs to develop strategies directed towards assisting teachers to gain distance from the routine nature of their existence as well as probe more deeply into the why of what they do, the meanings of their personal professional lives.

Elbaz (1987) contends that 'teaching is both effective and worthwhile to the extent that the teacher is able to reflect critically on practice' (pp. 45-6). Reflection, she says, has two entailments: 'first, that the teacher is able to test reflection through action designed to modify aspects of the learning/teaching situation; and second, that the teacher has some awareness of the knowledge used in such reflection' (p. 46). In describing a process by which teachers become aware of their knowledge, Elbaz cites Freire, who speaks of 'problem-posing education as a collective process in which participants reflect on their situation, coming to perceive it as an "objective-problematic situation" and acquiring the ability to intervene in reality as they become more aware of it; this process is seen as analogous to the decoding of "an enormous, unique, living *code* to be deciphered"' (p. 47).

Three phases can be identified in the decoding process. The first is the observers' individual 'sympathetic observation and recording of everything in the situation'. Secondly, there is the presentation of individual reports, in which 'each exposition challenges all other decoders' to new analyses by re-presenting to them the same reality. 'This is a process of dividing and reintegrating the total situation, and involves bringing forth the contradictions or "limit-situations" which characterise the reality of participants.' The third phase involves 'structuring a program of educational action based on the nucleus of "limit-situations" which has been identified' (pp. 47-8). From her work in using this process with teachers, Elbaz suggests that facilitating teachers' 'elaboration of their knowledge involves a movement through the three stages, and primarily a back-and-forth movement between the descriptive and the analytic, then

between the analytic and the synthetic phases, and ultimately moving into action' (p. 48). Elbaz notes that once teachers are well underway with the process of examining their teaching and their knowledge, there is 'a tendency to shortcut the first, descriptive phase'. The phase of analysis presents more difficulty.

Researchers are familiar with this difficulty: on the one hand, it is hard to get started without predetermined analytic terms; on the other hand, terms found in the literature do not necessarily suit the unique situation with which one is dealing. ... It is important to remember that for teachers, categories of analysis serve the organisational function of ordering their material in a personally meaningful way. (p. 50)

Another problem Elbaz has found is the tendency of teachers 'to jump to conclusions or solutions without really taking apart the situation' (p. 50). To counter this problem intervention may be necessary 'in the elaboration of the teacher's knowledge' (p. 52). A teacher may be so constrained by the 'inherent contradictions' of his teaching situation, that he sees no option for bringing about change. However, when a teacher is 'able to analyse a situation in depth and perceive its inherent contradictions, [his] ability to act to change that situation is enhanced' (p. 51). Elbaz concludes with a key point: 'it is essential to envisage and entertain concrete alternative courses of action which follow from the reflective process; only then can the process become self-sustaining, enabling the teacher to proceed independently' (p. 52).

Whittaker (1988) writes of an approach to 'encourage teachers to examine their practice by investigating the processes taking place in their classrooms, through focusing on six apparently simple questions ... to guide the teachers' observation, reflection and action' (p. 198):

- 1 What are the pupils actually doing?
- 2 What are they learning?
- 3 How worthwhile is it?
- 4 What did I (the teacher) do?
- 5 What did I learn?
- 6 What do I intend to do now?

A distinction is made between 'hot action' and 'cool action'. Classroom action is 'hot', control is tenuous, pressure for action is immediate, and to

hesitate in decision-making is to lose, therefore, decisions are mostly intuitive. Engendering a situation where deliberative reflection can occur is to provide a situation where 'the action is cool, and consideration of new ideas is much more feasible' (quoting Eraut, p. 199). Whittaker suggests that the experience gained, from the program that these questions underpin (*The Curriculum in Action: An Approach to Evaluation*), is experience in developing evaluation and self-awareness skills, analysing observation, assessing learning, stating and testing hypotheses, and developing the curriculum.

This experience, she claims, 'brings about a "cooling" of action and produces a more thoughtful reflective teacher, through this additional and "new" knowledge and understanding. ... New ideas affect decision-making indirectly, often without acknowledgement. They are used interpretively rather than applicatively and influence people by introducing new perspectives' (p. 199). The evaluation processes encompassed by the questions 'encourage deliberate reflection over a period of time'. They are essentially pragmatic processes, emphasising 'the part played by first-hand experience and subjectivism' and individuality, and premised on the tenet, that we 'learn how to do something by doing it' (pp. 199-200). Whittaker notes the use by program participants of 'journals or intellectual diaries', 'which contain records of what has been taught, writers' feelings and values as they reflect about concepts and issues, and ideas for applying what has been learned' (p. 203).

'In their ... analyses teachers define categories and progress to making judgements of value about the curriculum. These ... are the beginnings of personal theorising through which some teachers make "better" sense of their classroom practice. If this goes alongside a propensity to change practice, it will affect the quality of children's learning' (p. 200). However, an evaluation of the program indicates, Whittaker says, that the evaluative process encompassed in the questions used by teachers, encourages 'deliberate reflection in teachers to different degrees' (p. 211). She notes a range of responses in teachers by categorising them as 'zero learners', 'diffident pragmatists', 'inspirers', 'committed innovators', 'the undiscerning' and 'rejectors'. Some teachers appear to adopt a 'surface approach' to learning, whereas others take a 'deep approach'; significant consideration needs to be given to 'whether it is possible to move those

who adopt a surface approach to a deep one and, if so, how this change might be achieved. Further,' she asks, 'is it reasonable to expect teachers who habitually adopt a surface approach, with its implicit view of knowledge, to be able to promote deep approaches in the pupils they teach?' (p. 212) Whittaker claims that significant changes have occurred in teachers' management of classrooms, in the teaching/learning process and in classroom environments, as a result of the program. She concludes: 'An urgent need is to find a language which will allow the articulation of the [teachers'] personal testimonies to a wider audience' (p. 214).

Smyth (1989 and 1987b) also has teachers confront a number of questions, in his 'endeavours to get teachers to adopt a socially critical view of teaching' (1989, p. 226). He notes that 'enabling school people to develop a way of framing their problems and of discussing and working collectively on defining and understanding these problems, while striving to obtain resources to solve them, does not happen easily or fortuitously. It ... has to be worked at' (p. 224). Smyth suggests that teachers are not always fully conscious of their reasons for their actions. All professional work is rational in the sense that it is purposeful, and directed towards an outcome. Yet teachers may not be fully conscious of their reasoning, relying on routines without consciously thinking about them, 'but it is in the nature of their work that teachers are always trying to accomplish something when they act professionally' (quoting Sanders and McCutcheon, p. 225). Because of the culture of teaching, Smyth contends that it is an achievement to bring teachers to an acknowledgement that they have theories about 'what works for them in teaching'.

There is a sense, says Smyth, 'in which to act pedagogically means to act in ways that "empower" learners. Pedagogues ask questions, while articulating their theories about teaching and learning - they verbalise why they do what they do in their teaching, interrogating their knowing so as to uncover why it is they accept current practices, and questioning the veracity of the social conditions that support and sustain them' (1987b, p. 157). This is critical pedagogy, 'in which knowing is an ideological process that requires continual clarification and elaboration of the relationship between knowledge and the social order. ... What is needed is a way of reclaiming knowledge about teaching that acknowledges and questions its socially construed nature and the way it relates to the social order' (p. 158).

Smyth encourages teachers 'to adopt a socially critical view of their teaching' (1989, p. 226) by asking them to confront the following questions:

- Where do the ideas I embody in my teaching come from historically?
- How did I come to appropriate them?
- Why do I continue to endorse them now in my work?
- Whose interests do they serve?
- What power relationships are involved?
- How do these ideas influence my relationships with my students?
- In the light of what I have discovered, how might I work differently? (1989, p. 226)

Through confronting the implications of these questions, teachers are being challenged to make a clear distinction between receiving and creating knowledge. This is critical pedagogy in which Freire's 'pedagogy of the question ... challenges—teachers-as-learners' (p. 226). Teachers, therefore, are required to stand back from the habitualness of their teaching and to ask pointed questions about what they do and why. They are encouraged, above all, to challenge, to doubt, and to reject' (pp. 226-7). It is through developing the understanding that such probing questioning engenders, that teachers not only develop a language about teaching, but come to understand the full meaning of being a teacher, and through such understanding the possibilities emerge 'that permit teachers to transform their work' (p. 227). The focus, says Smyth, is on 'how deliberative and reflective processes may be used to create understandings that change practice.'

There is a clear contrast between Whittaker's and Smyth's questions. In the previous chapter, I suggested that we might conceive a spectrum of reflectivity with Schön's conception of reflection-in-action, within the context of complexity, uncertainty and instability, at one end of a spectrum; at the other end is the theory of critical pedagogy, embracing teacher empowerment and emancipation. Whittaker's questions are essentially Schönian, though they certainly incorporate reflection-on-action. Questions 1, 2 and 4 are descriptive, in the main, although question 2, along with question 5, seeks interpretation; question 3 is evaluative, but does not necessarily imply justification beyond reference to curriculum guidelines, for example. Question 6 relates to planning, and the quality

and depth of the response is dependent upon the depth of analysis and interpretation that has occurred in the treatment of the preceding questions. Thus, there is no apparent requirement within the questions for a teacher to ask himself why he is actually doing what he is doing, how appropriate is the teaching activity to the particular group of students, and how does the teaching activity relate to his theories of teaching.

Because they are essentially concerned with social and political issues of emancipation and empowerment, Smyth's questions appear to neglect the centrality of the teaching and learning process, and a focus on the student. Smyth claims that 'a reflective approach to teaching is severely constrained and limited by what it ignores' (1987b, p. 159). 'A truly critical pedagogy', says Smyth, 'involves an examination of existing social relationships at three levels: that of history, of current practice (including its hierarchical bases), and of the potential to transform arrangements in the future.' He sees the critical perspective as being 'especially poignant ... in situations (such as the present) where there are intensified moves towards increased centralism in education ... [which] as we all know ... are far from value-free ...' (p. 160) 'If teachers are to challenge and ultimately supplant [the] dominant technocratic view of schooling,' he says, 'it is necessary that they be articulate about the nature of their work, and where they are located historically and pedagogically in it, while also being conscious of its social and political purposes. It means that teachers ... must be unwilling to continue to accept the way things are in schools. ... What is needed is a faith in the power of teachers to reflect upon, resist, and change the oppressive circumstances in which they find themselves.'

The goals of critical pedagogy, as Smyth outlines them, go a long way beyond the development of teachers as reflective practitioners, according to our earlier description: teachers whose practice is informed by their professional knowledge, and whose theories are informed by their practice. And while I cannot dispute Smyth's concerns, and indeed, share them, my concern here is to help teachers to raise their consciousness with regard to particular issues of teaching, of content, teaching approaches and intended outcomes for students. I find support in the work of Lewis (1988), who in describing an M. A. professional development program, noted significant diversity in teachers' concerns and interests, with 'only a minority of teachers' wanting 'to embark on action-research inquiries', the

implication being that as teachers 'conceptualise their inquiries it looks as if they are at stages prior to embarking on action projects. The majority of teachers', he finds, 'are developing projects which put a premium on gaining knowledge about practices within the school' (p. 152).

If we return to the idea of a spectrum of reflectivity, we recall that between the two poles of Schönian reflection-in-action and the critical pedagogy of Smyth and others, is an area that Grimmitt et al. (1987, p. 7 and fig. 1) entitle 'hermeneutic pedagogy'. Hermeneutic inquiry, we recall, implies a focus on interpreting lived experience, but also includes questioning received wisdom and being open to the mysterious and the unknown. I suggested earlier that this middle ground might provide a more helpful approach for the professional development of teachers. In the light of this discussion of the questions offered by Whittaker and Smyth, I would now like to draw upon their work and attempt to develop another set of questions which would fit within the approach of hermeneutic pedagogy. There is always a difficulty in knowing how to ask the question one wants to ask. If I always know much more than I can say, and know that the question I ask may yield much more or less than I had intended, how can I frame the question that will probe in the areas I wish to probe, and perhaps disturb and even explore what might have long been undisturbed areas?

In posing this further set of questions, I am suggesting that the first three of Smyth's questions concern the sources and a justification for ideas embodied in teaching, that the next three questions are essentially about power and relationships, and that Smyth's final question, like Whittaker's final question, relates to planning for further action. (I apologise for the injustice to Smyth!)

I now offer a set of questions, with apologies to both Whittaker and Smyth:

- What did I set out to do with this class and why?
- What did the students actually do and learn, and how can I know what has been learned?
- How worthwhile was this instance of my teaching?
- Where did my ideas come from and how do I justify them?

- How do I intend to act on what I have learned?

While offering a set of questions to teachers may be a very useful approach to professional development, there are, of course, other approaches.

If language plays a vital part in learning, then writing has a crucial role in critical reflection. 'A necessary condition of professional inquiry is evidence in a form that is accessible to scrutiny and developed through a process that can dependably contribute both to the development of the profession and the improvement of schools' (Bell, pp. 42-3). Gitlin and Smyth write:

Creating a written descriptive account of what actually occurs during teaching ... provides teachers ... with an account *they* can use to dialogue and interrogate the critical relationship between what transpires in their teaching and their classrooms, and its relationship to the wider cultural and political life that shapes and informs schooling. Without that account ... it is not possible to recall teaching in terms that enable the richness and complexity to be adequately addressed. Besides, description is an important starting point in teachers' owning and analysing their teaching. ... 'one of the significant ways through which individuals give meaning to their experiences is [in] organising them in narrative form.' The rationale is that before teachers can confront themselves and their teaching in the sense of asking poignant questions about the nature, consequences and situatedness of their classroom practices, they first need to have a somewhat stable image of what is occurring in respect of their teaching.

... it is only by being articulate about 'what is' that teachers are able to be clear about 'what might be'. (quoting Mischler, pp. 121-2)

'When we commit ourselves to paper the process of shaping experience is likely to be a sharper one than it is in talk' (Britton, 1973, p. 248). The process of writing by its very nature extends our understanding. In writing about an idea or an event, we can discover things that we did not know before, or at least did not know we knew. We write about an event and we try to capture its essence, its uniqueness, its complexity, its familiarity and yet its strangeness; we try to recreate its very texture. And as we grapple with the process of re-creation we are enabled to contemplate the experience of the event in a way perhaps not otherwise open to us. The words we choose remind us of other events, ideas or qualities; we see

interrelationships, sequences, causes, effects that might otherwise elude us. Writing facilitates reflection. Ideas and events can be captured and considered in ways that would not exist at all if all language were as transient as thought or spoken words. Writing frames experience and distances it for our contemplation and discoveries.

Miller (1987) provides a graphic depiction of the writing process:

The composing process is essentially a meaning-making process. As the writer begins percolating and drafting, there's only a vague sense of intention or purpose. The full thrust of ideas has not yet emerged and part of the cycling back and forth among the percolating, drafting and revising, involves the writer in shaping purposes and refining intentions ... The meaning that thus emerges from one's text, and has been the focus of rereading it, is a result of this forward-backwards motion of the composing process. This interaction - returning to reread the text from a different angle of vision - plays a key role in helping the writer push forward to create meaning. (quoting Mayher, Lester and Pradl, p. 195)

Writing about educational ideas or events is one means by which 'one's self' is situated 'at the centre of study of educational experience. ... The writing process is a microcosm of those processes which allow the writer, the learner, the teacher to return again and again to the text of his or her educational experience, to reread that text from new angles of vision, and to "push forward to create meaning"' (Miller, pp. 196-7). Writing also assists our re-creation and further contemplation of an experience after we have completed the written piece: 'whenever we write about an experience and later return to it, we gain at least two additional perspectives. As we write we are one step removed from it and as we later reflect we are another step removed. What might not have seemed important at the time might become important ... as we gain distance from it. We begin to differentiate those situations where our actions are consistent with our aims, from those where they might inadvertently be working against them' (Holly and McLoughlin, 1989, pp. 267-8).

Miller describes a professional development program which involved teachers in writing about their own experiences and thereby engaging 'in their own active pursuits of meaning; not only in self-reflective research but also in classroom research'. Her thesis is that 'educational research can become a liberating and empowering activity by involving teachers in the

research process itself' (p. 194). 'Like the composing process', Miller writes, the teachers' work together 'became a series of explorations and discoveries of [their] individual and collective emerging texts' (p. 197). Earlier negative experiences of writing meant that for many teachers this was their first occasion of writing in a reflective manner. The teachers 'constantly attended to the paradox of student resistance to writing as a mirror of the group's own fears and reluctance to incorporate writing into learning and teaching experiences' (p. 200). The difficulties experienced became the focus for 'the retrospective and prospective structuring of [the group's] writing as well as the regressive and progressive analysis of that educational experience.'

The text, with its inherent difficulties related to the composing process, the aspect of content, and the responses of readers to that content, became a metaphor for the work of the class. Miller contends that in a 'co-operative enterprise' of writers and readers constructing meanings together, there is a 'dialectical tension between their interactive and interdependent processes'. Written thought 'is radically social and intersubjective through its very constitution as a discourse'. Texts effect 'dynamic interactions' in 'the joint construction of meaning' which become 'a basis for complex negotiations between discourses over attitude, belief, and action in the world' (pp. 200-201).

If teachers have experienced writing as a means of reflection and analysis of their own situational contexts as teachers, then that larger form of text becomes the point of possible interaction and interpretation among the teacher, the student, and the subject matter content. In this way, content is not reified as objective entity and curriculum becomes part of the processes of teaching and learning. (p. 201)

A vital point Miller makes is that:

To encourage teachers to become readers and writers of their own texts is to acknowledge the concurrent necessity of a 'timeless' aspect for the creation of that text, a space in which they may step back and contemplate the coherence of its past as well as its future. This requires the acknowledgement of the retrospective nature of teaching as well as of writing; further this requires the synthesis of regressive and progressive analysis of teachers' texts so as to enable teachers to engage with other teachers and with students in the joint

constructions of meanings and in negotiations 'over attitude, belief and action in the world'. (p. 202)

In inviting teachers 'to step away from their daily pressures and routines, to explore and reflect upon possibilities for themselves and their students, and then to step back into the press of students in hallways and classrooms', Miller says, the program enabled teachers to read the texts they created 'from a new angle of vision' (p. 202). It allowed for teachers' 'spontaneous telling of their own stories', for 'what James Britton calls, "shaping at the point of utterance". It is at this point of spontaneous meaning-making, emerging and moving forward from that suspended point of reflection and contemplation, that teachers in focusing upon and sharing their emerging texts, enact for their students the potential of learning itself as process and discovery' (pp. 202-3). And 'by experiencing the retrospective and prospective structuring of their own writing experience and engaging teachers in the regressive and progressive analysis of those experiences, teachers could begin to encourage their students to engage in those same processes' (p. 203).

Holly and McLoughlin contend that, for teachers, journal writing is 'a way to explore their theories of teaching and professional development'. Theories are 'implicit and sometimes explicit in their writing' (p. 269). 'When teachers document practice and analyse what happens, they create case studies, which are, in effect, stories of their teaching and learning' (Holly and Walley, pp. 293-4). Thus the journal is 'potentially a comprehensive and evolving data base and case study' (Holly and McLoughlin, p. 279) for the study and conduct of teaching. Not only does writing appear 'to bring to a conscious level much that was tacit knowledge', but the use of words to describe and tell a story of teaching, 'enlarges the lexicon available to describe practice' and provides bases for collegial discussion (p. 268).

A personal/professional journal not only contains case studies, it is one. Factual information; the spontaneous pouring of words on to the page at the height of emotion and feeling; documentation of research; reactions to readings, colleagues, pupils, community and world events; and autobiographical flashbacks are each called forth and written by the author - all products of the author's experience. (p. 268)

Holly and McLoughlin report on a professional development program in which teachers reflected through writing during the school day, 'documented their theories-in-action and created documentation to return to and reflect on. ... Journals became tools for reflection, analysis, and self-evaluation. Stages in writing were discovered, as well as different types of writing representing different kinds of thinking' (pp. 262-3). As teachers wrote, new thoughts were stimulated and in their sharing with other teachers, their theories and questions were challenged and developed. Later, in returning to their journals, they found they could explore their ideas from different perspectives and follow the development of these ideas (p. 269).

A journal, then, is described as 'a comprehensive and systematic attempt at writing to clarify ideas and experiences; it is a document written with the intent to return to it, and to learn through interpretation of the writing' (p. 263). Although it is kept over time, the journal is not necessarily a record of events as they happen, but patterns or topics recurring in the writer's experience might result in the journal being used as a means for systematically exploring and analysing problems. Holly and McLoughlin note that the writing may be journalistic, analytical, evaluative, ethnographic, therapeutic, reflective, introspective, and creative (pp. 264-5). 'Writing for different reasons, and in different ways enables us to gain different perspectives on the multiple dimensions of practice' (p. 281). Through the process of keeping a journal, 'we can become more sensitive observers, more penetrating in our inquiry ... and more focused on our roles and directions in life' (p. 266). 'Keeping a journal can help us to see the circumstances [of events], and to document experience over time so that we can see the flow of events rather than isolated instances' (p. 268). Keeping a journal also encourages us to confront and know ourselves:

Self evaluation is an integral and essential part of professional development. It is dialectically formative and summative. Keeping a personal-professional journal is both a way to record the journey of teaching and growing, and to experience the processes purposefully and sensitively. It is a method for exploring our inner worlds and histories; of probing the educational and cultural milieus within which we teach; and of inquiring into the meanings of teaching. (p. 281)

Tripp (1987) sees the journal as providing a real possibility for collaborative research, enabling teachers and researchers to engage together 'with classroom practices at a more theoretical level to answer questions of "what" and "why" rather than merely of "how"' (p. 179). In a collaborative model 'teachers make their own choices and are active, self-reflective researchers into their own practice and situation. For the outside researcher, working collaboratively means that the teacher's experiences in [both] those roles are the research data. Only then can learning be symmetrical in that the teacher learns as much as the researcher' (p. 180). Tripp says that for the researcher, emphasis must be upon the value of theory to teachers' understanding of their journal items. He sees two major strengths in this kind of collaborative research. For teachers there is 'active involvement in the generation of a more systematic and shared (and thus scientific and objective) understanding of their own practice'. 'For researchers, it ought to lead to a better theoretical understanding of the culture, site and person-specific nature of classrooms, particular, and schooling, in general (p. 190).

Winter (1988) has developed an approach to writing case studies, as practitioner research and thus as professional development, based on the notion that a story is 'analogous to providing a theory'. Winter takes his cue from John Elliott, who wrote:

In explaining 'what is going on', action-research tells a 'story' about the event by relating it to a context of mutually interdependent contingencies ... This 'story' is sometimes called a case study ... Case study provides a theory of a situation, but it is a naturalistic theory embodied in narrative form. (quoted in Winter, p. 231)

In conducting research, the aim is to achieve a plausible description and to create a theory, which in a sense provides a structure for the details of the description. Thus, says Winter, there is 'a tension for the case study writer between achieving validity through the exhaustive accumulation of details and through the selective organisation of those details' (p. 232). The resolution of such tension, he suggests, can be found in considering the writing of 'a story as an act of theorising'. Telling a story is a skilful process of organising material to make it 'interesting' and 'case studies work by example rather than by abstract argument'. Case study writers set out to 'develop fresh and significant insights into their experience' (p.

233). 'A story sets limits, it controls what the writer lets the reader see. In this sense a story is analogous to a theory' (Winter (quoting Walker), p. 233). Winter's argument recalls much of our discussion in this chapter and especially in chapter 5 and he refers to the work of Britton, Hardy and others in developing it.

The process involves collecting the case study data, organising the data as a montage, 'to bring out their ironies, contradictions, discrepancies. In order to do this an initial structuring is carried out as an act of "storying"', which anticipates 'a continuing analytical response from a group of readers', who act as collaborators in the research process. This structuring thus becomes an analytical critique, 'which makes explicit what the text leaves implicit' (p. 239). Thus Winter argues that:

... this fictional-critical procedure can enable writing about a single situation to achieve theoretical status, in the sense of transcending the familiar pragmatic meanings of day-to-day professional life. To theorise, in this sense, is to address directly the ways in which these familiar meanings (opinions, ideologies, convictions that there can be no alternative) conceal the contradictions, ironic inconsistencies, in which they are inevitably based. ... in this sense it can be a central element ... for small scale social science research - as long as we accept that ... social science's project is one of innovative, critical theory. (pp. 239-240)

Holly and Walley summarise for us some of the key contributions of the approaches to teacher professional development which have been considered in this chapter:

As teachers focus on what they do in classrooms and schools and as they probe why they do what they do new questions, and new possibilities emerge. Professional judgement develops through experience, by identifying challenges, by turning problems around and around and by exploring alternative solutions and trying them out. There are no methods for school improvement better than serious observation and professional deliberation. Thoughtful, reflective practice takes time and courage. ... Professional teachers are those who discover and act on their judgements and who develop ways of working collaboratively to make schools better places for children, and perhaps, the profession a better place for all. (p. 305)

'Learning is not only a result of what we do, but also of how we give meaning to what we do' (Rowland, 1988, p. 63). Approaches to professional development which are designed to support teachers in becoming reflective practitioners and in conducting their own research can, of course, take many forms. But an over-riding feature of inquiry-based approaches is that, in being founded on a theory of knowledge as personal construction, they empower teachers to bring about deep-seated changes in their teaching, changes which require adjustments not only to practices, but also to theories and beliefs. The acknowledgement of teachers' intellect and professionalism - the exercise of professional judgement developed through reflection on experience - and acceptance of the assumption that improvements in teaching are made by teachers themselves through their deliberative actions in classrooms, which are implicit in inquiry-based professional development, are keys to such empowerment of teachers.

To draw to a conclusion this chapter, and indeed, this study of how professional development might assist teachers to become reflective practitioners, it is helpful to derive from our discussion some enduring ideas, which might be thought of as principles of inquiry-based programs. First among these is the conception of knowledge as personal construction, with the implication that the task of inquiry based professional development is to promote and sustain a dialectic between knowledge and experience. Secondly, and following from the first principle, is the belief that knowledge is created through the process of symbolisation. It follows that language, and particularly personal and deliberative forms of language use are crucial to the process of reflection and to the development of new knowledge. To be able to talk and write about their teaching in increasingly precise ways teachers need a shared language. Inquiry-based programs have a key function is supporting teachers in the development of this discourse.

A third principle is that collaboration and sharing are necessary to support teachers in the loneliness of risk-taking and in the gradual task of coming to understand better and enhance their practice. Collaboration, as we have seen, is contrary to the culture of teaching, so that essential to inquiry-based programs are reflective workshops, in which teachers are supported as they build collaborative and supportive alliances. And a corollary to this

principle is that sharing and collaboration take time, time to develop confidence, trust and a shared language, as well as to listen to and learn from one another. A fourth principle is that the legitimacy of practitioner research is undeniable; the actively reflective teacher uses concepts and processes as intellectually challenging and complex as those required in traditional approaches to research. We know, too, that much research in education, conducted by Positivist empirical methods, is of little use to teachers. When teachers are conducting their own research, the focus of their inquiry is a topic of their own choosing and is, therefore, of interest and importance to them in their professional lives. It follows that the detailed foci of study in inquiry-based programs need to be established through a process of negotiation between teachers and program leaders.

In chapter 3 we noted Charles Blackman's comment, 'How we view professional development is a direct outgrowth of the way in which we view teacher roles' (1989, p. 2), and of the way we view teaching. Elliott told us that educationally valuable learning is learning how to learn, developing an inquiring mind, discovering things for oneself, learning with understanding, not independent of the acquisition. Thus the aim of teaching is to enable students to take responsibility for their own learning. The fifth, and final principle (and in a sense the most important, for it could be seen to subsume the others), is inextricably related to this view of teaching. Inquiry-based professional development programs encourage and support teachers in their systematically critical inquiry into their own practice, on the basis that in their initiatives teachers are taking responsibility for their own learning about the processes of teaching and learning, and for improvements to those processes within their own classrooms. Inquiry-based programs encourage teachers to become and remain independent learners, like Rowland (1988), who says:

By observing children (or other adults) learning, I am reminded of my own past and present experience of learning and new understandings of that experience are suggested to me. On the other hand, it is my thoughts about my own learning which help me to make sense of the learning activity of others whom I observe. (p. 64)

Inquiry-based professional development programs provide opportunities for teachers to step back from their classrooms, and through their deliberative and systematic reflection, to find ways of exploring and

making sense of the complex, problematic world of the classroom. They enable teachers to make explicit the theories that might otherwise have remained at a tacit level. In making their theories explicit to themselves and to their colleagues, teachers are exposing to question, and perhaps to challenge, their assumptions, values and beliefs about teaching. In addition, awareness of the processes of their learning impels them to scrutinise and reformulate their theories of how students learn. Teachers find little relevance in external researchers' views of teaching. They strive to learn from their own experience - their own learning and teaching - and to learn from others whom they trust, and to apply their learning to their teaching, ever seeking to enable their students to enjoy the magic of genuine engagement in their learning.

End Piece

Reflection is a *looking backward* in hopes that light will be thrown by thought on experience. In the concept of reflection we have, therefore, the element of looking combined with associations from how we think in physics about the action of heat and light. One reflects in order to see something that is not available to simple looking but requires the mirror of mind. What distinguishes reflection from memory is the hope that turning back on oneself and the past will improve *foresight*.

Margret Buchmann (1990)

Reflective practitioners progressively construct their own knowledge of teaching, and the sources of their knowledge are many and varied. In their conscientious endeavour to understand more and more of the complexities of teaching, they articulate and explicitly examine their theories in the context of their experience, and they monitor their own progress. Their theory is derived from practice, and practice from theory in a continuously interactive process. This means that reflective practitioners are not content to take on the theories of others without testing them for themselves against the yardstick of their experience, and without making adjustments and adaptations in the light of their knowledge. These are teachers engaging in systematic inquiry into their own teaching, with the intention of improving it, and they are teachers who are autonomous in their professional judgement.

Yet, as we have seen, reflective practice is not a stance that is easily assumed by teachers. Control of knowledge about education has traditionally been in the hands of external researchers who have tended to serve the interests of educational administrators, rather than teachers. Moreover, within this culture and because of the problematic nature of teaching - its complexity, uncertainty and instability - teachers have come to regard their knowledge as inherently provisional. The gift of reflective practice is that in becoming aware of their own theories and testing them in the classroom, teachers' come to realise that through their reflection-in-

action and their reflection-on-action, they are the constructors of the knowledge that can empower them to change and enhance their practice.

Teachers engaging in systematic, self-critical inquiry are teachers learning from their experience, both as learners and as teachers. There is a logical extension of this view of teachers as reflective practitioners. Not only are they supreme models for their students, models of learners able to initiate, direct and take responsibility for their learning, but their understanding of their learning informs their teaching. Thus there is a correspondence between the conception of teachers as reflective practitioners and the notion of independent learners engaged in what we have termed 'educationally worthwhile learning' - learning how to learn, how to acquire and apply information, how to think logically, creatively and divergently, how to set and solve problems, and learning how to take responsibility for their learning. But this is the subject of another study.

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